

# Formulation And Evaluation Of Herbal Perfume Soap.

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## Abstract:

The increasing consumer preference for natural and chemical-free personal care products has led to a surge in demand for herbal soaps. This study focuses on the formulation and evaluation of a herbal perfume soap incorporating neem (*Azadirachta Indica*) extract and various essential oils, including lavender, tea tree, eucalyptus, and sandalwood. Neem is well-known for its antibacterial, antifungal, and anti-inflammatory properties, making it an ideal base for medicinal skincare. The addition of essential oils not only enhances the soap's therapeutic benefits—such as antimicrobial activity, skin nourishment, and soothing effects—but also imparts a natural, pleasant fragrance that supports aromatherapy. The formulation aims to provide an eco-friendly, skin-safe, and effective cleansing solution suitable for all skin types, especially sensitive and acne-prone skin. Physicochemical evaluations including pH, foaming capacity, and stability were conducted to ensure quality and performance. Results indicate that the herbal perfume soap is a promising alternative to synthetic soaps, offering both functional skincare and sensory appeal through natural ingredients.

**Keywords:** Perfume & herbal solid soap, natural ingredients, essential oil are used  
**Introductions:**

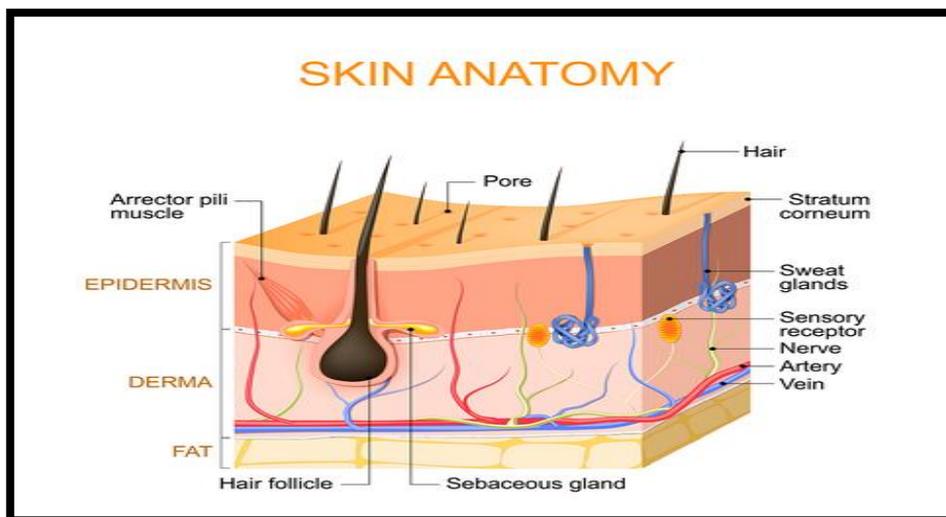
The word perfume has originated from the Latin word “perfume”, meaning through smoke. Over the course of time, countless numbers of flavors and fragrances has introduced into everyday life, into foods, beverages and confectionery items, personal care products (soaps, toothpastes, mouthwashes, deodorants, bath lotions and shampoos), perfumes, and other cosmetics as well as pharmaceutical formulations.

Here's a sample introduction for an herbal perfume soap that uses neem extract and various essential oils

In recent years, there has been a growing preference for natural and chemical-free personal care products. Herbal soap infused with neem extract and essential oils offers a unique combination of nature's healing and aromatic benefits. Neem, known for its powerful antibacterial, antifungal, and anti-inflammatory properties, serves as the perfect base for skin care. When blended with essential oils such as lavender, tea tree, eucalyptus, and sandalwood, the result is a luxurious herbal perfume soap that not only cleanses and nourishes the skin but also leaves a lasting, refreshing fragrance. This herbal soap is ideal for those who seek a gentle yet effective cleansing experience with the added therapeutic effects of aromatherapy and natural ingredients.

## Skin:-

The skin covers the external surface of the body and is the largest organ in weight. It approximately covers 2 square meters. The skin mainly contains two parts: Epidermis and Dermis. The absorption of water-soluble substances through the skin is negligible but certain lipid-soluble materials penetrate the skin layers. Such substances are certain, drugs fat soluble vitamins, and gases case as carbon dioxide and oxygen. In the topical steroids, which are lipid-soluble, they reach easily to the papillary region of the dermis. Absorption through the skin has also given rise to the transdermal route of drug administration.



**Fig- Skin**

## BENEFITS OF HERBAL SOAP PERFUME:-

### 1. Natural Fragrance:

Made with essential oils (like rose, lemon, or eucalyptus), giving a refreshing and long-lasting scent without synthetic chemicals.

### 2. Gentle on Skin:

Herbal soaps are usually free from harsh chemicals, making them suitable for sensitive or dry skin.

### 3. Skin Nourishment:

Ingredients like almond oil and neem help moisturize, heal, and improve skin texture.

### 4. Antibacterial & Antiseptic Properties:

Herbs like neem, rosemary, and eucalyptus help fight bacteria, acne, and skin infections naturally.

### 5. Aromatherapy Effects:

Essential oils in the soap can help relax the mind, reduce stress, and improve mood.

**Objective:-**

1. The ultimate aim of this study is to formulate the Antibacterial, antifungal soap using the essential oil.
2. Perfume soap is applied topically and may be more suitable for treating skin conditions like fungal infection, acne or body odor.
3. Perfume soap is type of soap that may help people get rid of various infection.
4. It may also be useful for treating other skin conditions such as psoriasis and eczema.
5. Cleaning effectively remove dirt, excess oil and impurities from the skin.
6. Moisturizing: Nourish and hydrate the skin using ingredients like almond oil and rose.
7. Rejuvenation: Stimulate skin regeneration and enhance skin tone using rosemary and lemon.
8. Balance Cleaning and Moisturizing.

**Materials & Method:-****Instruments:-**

1. Weighing balance
2. Measuring Cylinder
3. Stirrer
4. Pair of tong
5. Beaker
6. Heating mental/burner
7. Container to fill finish product.

**Material for Soap Base:**

Sr.No.	Ingredients	Quantity (%)	Uses
1	Coconut Oil	75 gm	Moisturizing Agent/Antiaging Agent
2	Sodium hydroxide(NaOH)	15 gm	Lye (Used in making soap )
3	Distilled water	25 ml	Aq. Vehicle
4	Sodium Chloride (NaCl)	3 gm	Harden soap faster

**Soaps perfume ingredients:-**

Sr. no.	Ingredients	F1 Quantity	F2 Quantity	F3 Quantity	Significance
1	Soap Base	75 gm	75 gm	75 gm	Cleaning Agent
2	Neem Oil	10 ml	15 ml	12 ml	Antibacterial Agent
3	Glycerine	2 ml	2 ml	2 ml	Moisturizing Agent
4	Sodium lauryl sulfate	30 mg	30 mg	30 mg	Foaming Agent
5	Methyl Paraben	0.2 gm	0.2 gm	0.2 gm	Preservatives
6	Lemon essential oil	15 drops	15 drops	15 drops	Fragrance
7	Eucalyptus essential oil	10 drops	10 drops	10 drops	Fragrance
8	Rose essential oil	10 drops	10 drops	10 drops	Fragrance
9	Rosemary essential oil	10 drops	10 drops	10 drops	Fragrance
10	Almond oil	1 ml	1 ml	1 ml	Emollient
11	Distilled Water	2.5 ml	2.5 ml	2.5 ml	Vehicle

**Procedure:-****1) Soap Base Preparation method:**

1. For the preparing soap base, we take 75ml of coconut oil in a 500ml of beaker.
2. Put it on the water bath boil the liquid up to forming strong consistency under the temperature - C with stirring and note the temperature level by using thermometer.
3. Then we take NaOH or Lye was weighed into a clean beaker and add into the distilled water, again we maintain the temperature levels by using thermometer.
4. Add this solution to the coconut mixture, oil at - C up to formation of base consistency.
5. Then the mixture can be transfer into soap molds and keep it the freezer up to 2-3 hours and then after 2-3 hours remove the soap containing molds from the freezer then allow to 5 mints without disturbance then soap will be formed.

**2) Perfume soap Preparation method:**

1. **Melt the Soap Base-** Take 75 g of soap base and melt it is used in heating metal.
2. **Melt the Soap Base-** Take 70 g of soap base and melt it is used in heating metal.
3. **Add Neem:** Mix in 6 ml neem extract, based on your preference.
4. **Sodium lauryl sulfate:** Slowly add 20 g of SLS stirring continuously to avoid clumping

5. **Add oil:** Add 1 ml almond oil ,and all essential oil 15 drops leman oil , 10 drops eucalyptus oil, 10 drops rose oil ,10 drops rosemary oil as per the given quantities.
6. **Preservatives:** mix 0.2 g of methyl paraben in to a small amount of from distilled water (2.5 ml) and add it 2 the mixture.
7. **Blend Thoroughly:** stir the entire mixture well to ensure even distribution of all ingredients.
8. **Pour in to Molds:** Quickly pour the mixture in to soap mold while it's still warm and liquid.
9. **Cool and Set:** Allow the soap to cool at room temperature or refrigerate it for faster setting.
10. **Demold and Cure:** After the soap has solidified (usually within a 5 hours), remove it from mold, before use.

## EVALUATION TEST:-

### Determination of Homogeneity:

It is done by touch and visual appearance which means that all ingredients are evenly distributed throughout the product.

### Organoleptic test:-

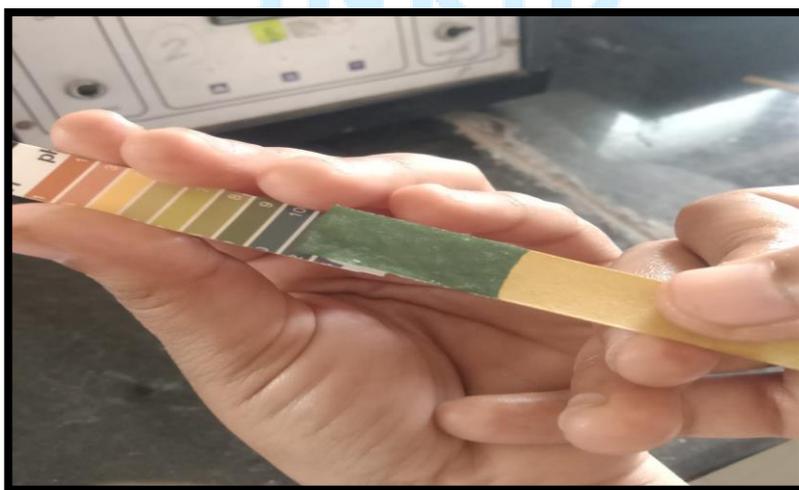
The organoleptic test was a method of testing that made use of the five human senses. Colour, aroma, appearance, moisture, comfort, and homogeneity are all factors to consider. Evaluation means the study of drugs using the organs of the senses. It refers to the methods of analysis like colour, odour, taste, size, shape, and special features, such as touch, texture, etc.

- I. **Color :-**Green
- II. **Oder :-** Aromatic
- III. **Appearance:-** Good

### Determination of Physical Evaluation:-

**The herbal soap formulated was evaluated for the following properties:**

**pH:-** The pH was determined by using pH paper the pH was found to be basic in nature.



### I. Thermal stability :

This soap is mainly stable at room temperature. Temperature increases it mainly unstable.

**II. Microbial growth :-**

Using agar plates the plates were placed in to the incubator and are incubator at 37C for 24 hours and compared with standard.

**III. Irritancy test :-**

An area was marked on one dorsal part of the hand. The prepared soap was applied for skin and wash the hand time was noted down. It was continuously monitored for any kind of irritancy or allergic reactions at regular time intervals for 24 hours.

**IV. Foam retention :-**

25 ml of the one percent soap solution was taken into a 100 ml graduated measuring cylinder the cylinder was covered with hand and shaken 10 times. The volume of foam at 1 minute interval for 4 minutes was recorded. It was found to be 5 minutes.



**RESULT & DISCUSSION:**

Sr. No	Properties	Observation
1.	Physical appearance	Good
2.	Odor	Aromatic
3.	Color	Green
4.	pH	Basic in nature
5.	Thermal Stability	Stable
6.	Microbial Growth	Absent
7.	Irritancy	No irritation
8.	Foam Retention	1 cm
9.	Washable	Easily washable
10.	After feel	Soft, Cool and Smooth

**Conclusion:-**

The prepared formulation when tested for different formulation gave good results. It does not give any serious side effect to skin it was determined by using this soap.

An antibacterial soap has been produced successfully from Neem extraction, Essential Oil and other ingredient in this study. The results from the physicochemical properties of the antibacterial soap of Neem prepared was compared to standard soap.

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