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## Formulation And Evaluation Of Herbal Lotion

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### ABSTRACT:

The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations. The Herbal preparation is research by many more researcher and from new herbs obtained new herbal formulation. Herbal lotions have gained popularity in recent years due to their perceived natural and safe properties compared to synthetic skincare products. This abstract explores the formulation, benefits, and efficacy of herbal lotions in skincare routines. It discusses the key ingredients commonly found in herbal lotions, such as aloe vera, coconut milk, honey, and lavender, known for their soothing and nourishing properties. Furthermore, it examines the potential benefits of herbal lotions, including hydration, inflammation reduction, and antioxidant protection.

**KEYWORDS:** Herbal drugs, Herbal drug extract, aloe vera, Honey, coconut milk, Herbal formulation and Evaluation

### INTRODUCTION:

Herbal formulation involves the natural ingredients which are used in cosmetic products. The features of the herbs are well-known. For example turmeric, Aloe vera etc. The origin of ayurveda in India by Rishi's also denotes the best of ayurvedic herbs. (2) The word „Cosmetic“ derived from a Greek word – „kosmesticos“ that means to adorn. From that time any Materials used to beautification or promoting appearance is known as cosmetic. The word “cosmetics” Actually stems from its use in Ancient Rome. They were typically produced by female slaves known as “cosmetic” which is where the word “cosmetics” stemmed from. Cosmetics are used to enhance appearance. (3) The formulation which contains the herbs are proved by ayurveda. Herbal remedies in rich the bodies with nutrients with other useful minerals. An herbal lotion that can give effective protection to skin and free from any toxicity` A herbal lotion is a liquid preparation, applied externally on the skin to produce or enhance a beautification. Lotions are used for washing the skin and to remove the oily secretions. It increases the blood circulation, emolliency, extended to astringency, skin freshness, bleaching and other medicinal properties. The function of a skin lotion is to opposed to skin against different environmental condition, weather and gives soothing effect to the skin. Herbal Cosmetics, here referred as Products, are formulated, using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic advantages only, shall be called as "Herbal Cosmetics". The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal product triggered the demand for natural products and natural extracts in cosmetics preparations. Lotions are liquid preparations meant for external application without friction. They are applied directly to skin with the help of some absorbent material, such as, cotton wool or gauze soaked in it. Lotions may be used for local action as cooling, soothing or protective purposes. (1)

### **Ideal properties of Herbal lotion**

1. They should give cooling effect on application.
2. They should be free from particles.
3. They should produce emollient effect.
4. They should remove the oily secretion upon application.
5. They should spread uniformly on the skin surface.
6. They should not cause any skin toxicity.
7. They should be compatible with skin pH.

### **Lotion Benefits**

- Feel and smell good.
- Help yourself relax.
- Soften the roughest parts of your body.
- Make your skin glow.
- Protect the skin.
- Purifies the skin.
- Improve skin elasticity.
- Replenish extra dry or rough spots on the skin.
- Rehydrates dried skin.

### **Advantages of herbal lotion:**

- Easy to manufacture.
- Easy to available and found in large of variety of plants.
- They do not provoke allergic reactions and do not have any negative side effects.
- They are easily incorporated with skin and hair.
- They have more stability, purity, efficacy, with their herbal constituents.
- The storage and handling of herbal cosmetics is easier and for prolong period.
- Cheap in cost.

### **Ingredients used in Herbal lotion**

1. Aloe vera gel
2. Coconut milk
3. Honey
4. Almond oil
5. Glycerine
6. Rose water
7. Tomato
8. Vitamin E
9. Lavender oil

### 1. Aloe vera gel-

- Is used as a moisturizer, to reduce pimples And acne and also used for treatment of Burn Wounds.
- Is used as an antifungal and anti-Inflammatory and it is also used to reduce scar, Pigmentation, redness and itching of the skin
- It has vitamin C and E Beta carotene in abundance. Therefore, it has anti-aging properties.
- It also contains antimicrobial properties and is anti- inflammatory.
- It has cooling properties and it is rich in antioxidants and minerals that boost the healing process. It also helps moisturizing and soothing effects.(4)
- Aloe vera's cooling action Offers a cooling feeling and inhibits the onset of sunburn
- This medication is use as a moisturizer to treat or prevent dry, rough, scaly, itchy skin and minor skin irritation



Aloe vera gel

### 2. Coconut milk

- Coconut milk has a high fat content which can have an excellent moisturizing effect when applied topically dry skin, and it also acts as a sealant to lock in moisture and hydrate.
- It's easily absorbed, smoothest skin cells, and the fats help maintain your skin's elasticity.
- It is ideal moisturizer for the body which makes the skin smooth and textured.(5)
- Coconut milk is moisturizing agent.
- It promotes wound healing and reduce inflammation.
- It contains antibacterial and antifungal properties.
- It has anti- oxidant property



Coconut milk

### 3. Honey

- Honey is a natural antiseptic and anti-inflammatory that helps to heal breakouts of acne and prevent extra infections.
- Honey also reduces the redness and swelling of acne.
- Honey moisturizes the top layers of skin and helps to reduce wrinkles and fine lines.
- It use as wound-healing agent.(6)
- Honey is an antibacterial product meaning that it fights bacteria.
- Honey prevent bacterial infection it can be so moisturizing.

- It minimizes pores, fights bacteria, and keeps your skin smooth and young.
- Honey is an excellent preservative for aloe due to its long shelf life and compatibility with various substances.
- Honey is primarily composed of sugar, along with a combination of amino acids, vitamins, minerals, iron, zinc, and antioxidants.
- Honey is utilized for its various health benefits, including its anti-inflammatory, antioxidant, and antibacterial properties.



Honey

#### 4. Almond oil

- Almond oil is an emollient that provides hydration, which can help moisturize and smooth skin.
- Almond oil is generally safe for sensitive skin because it is non-irritating and light weight.
- It may act as an antioxidant.
- It may have anti-inflammatory action.
- It may increase good cholesterol levels.
- It may have antibacterial activity
- It may have anti-fungal properties
- It may act as an immunity booster.
- Reduce the dry and rough skin, making it Bright and Clear.
- Helps to achieve soft and smooth skin.
- Gives you super-hydrating skin without feeling heavy.



Almond oil

## 5. Glycerine

- Glycerin uses as moisturizer.
- It soothes dry and irritated skin.
- It treated acne and scars.
- It helps to reduce wrinkles.
- It has Anti - aging property.
- It is used as cleanser.
- It improves skin permeability



Glycerin

## 6. Rose water

- Rose water can clam your skin.
- It has anti aging property.
- Rose water makes great facial mist.
- It can be used to create fragrance.
- Rose water is a powerful ingredient in a facial treatment.
- Rose water is a rich source of anti-inflammatory property.
- It helps to provide a cooling effect and help in reducing itchiness and redness.
- It helps to smoothen skin irritation.
- It hydrates and moisturize the skin.
- It helps maintain the skin's ph balance.
- It improves skin texture and softness.



Rose water

## 7. Tomato

Tomato (*Lycopersicon esculantum*) belongs to family Solanaceae. Tomato is one of the most popular and widely grown vegetable crops in the world.

Tomatoes contain lycopene Trusted Source, a carotenoid found in different types of fruits. This naturally occurring compound gives tomatoes their red color.

They contain antioxidants and vitamin C, which may help strengthen your immune system

They're also a dietary source of:

- potassium
  - vitamin A
  - vitamin B
  - magnesium
- It reduces excessive oil.
  - It removal of dead skin.
  - It prevents acne.
  - It brightens the skin.
  - It relieves skin irritation.
  - It delays the signs of ageing.
  - It tighten pores.
  - It blemish clarifying tomato face wash.(17)



Tomato

### EXTRACTION PROCESS OF TOMATO :

1. In a mixer fresh tomato was cut and homogenized.
2. A part of the water was distilled off under reduced pressure at 60 ° C And discarded to obtain of tomato concentrate.
3. Adequate amount of water saturated was poured into the concentrate, protected from light at Room temperature, and the mixture was stirred for 2 hours.
4. After 2 hours, the extract was collected and the residue was extracted .
5. The extract was filtered and filtrate is collected.(7)

**PREPARATION OF ALOVERA GEL:**

1. Collect the raw material.
2. Wash leaf and remove base and tip of the leaf.
3. Leaf is cut into section.
4. Extract mucilage part of the leaves into mixing jar.
5. Heat it and add agar-agar powder.
6. Grinding /homogenization of unpasteurized juice.
7. Add vitamin E and mix it well.
8. Package the produced gel and store it.

**FORMULATION TABLE:**

Sr.No.	Name of Ingredient	Quantity (ml)
1	Aloevera Gel	10 ml
2	Cocount Milk	5ml
3	Honey	5ml
4	Tomato	3ml
5	Almond Oil	2ml
6	Rose Water	2ml
7	Vitamin E	2 Capsule
8	Glycerin	3ml
9	Lavender Oil	2-4 Drops

**METHOD OF PREPARATION HERBAL LOTION:**

1. Weigh all the ingredients as per formulation
2. Alovera gel was taken in separate clean beaker then stirred it till it gets converted into little bit creamy form.
3. Then honey and tomato extract was added and mixed it.
4. Then another beaker was taken and in that Almond oil, Lavender oil, Vitamin. Oil from capsules and Glycerin was added.
5. Then this oils solution was slowly added in the first one beaker and mixed it thoroughly.
6. After mixing all ingredients rose water and coconut milk was added as per consistency.

**EVALUATION TEST FOR HERBAL LOTION:**

1. Organoleptic character
2. Homogeneity
3. PH determination
4. Stability test
5. Determination of spreadability
6. Irritancy test
7. Washability

## 1. Organoleptic character

Colour – Yellowish

Odour -Pleasant

Texture –Smooth

State – Semi-solid

## 2. Homogeneity

The formulation were tested for homogeneity by visual appearance and by touch.

## 3. PH determination

0.5 g cream was taken and dispersed in 50 ml distilled water and then PH was measured by using digital PH meter.

## 4. Stability Test

To check the microbial growth, the formulation was placed in the center of the petri dish, and then the plates were incubated at 37°C for 72hrs.

## 5. Determination of Spreadability

Sample was applied between two glass slides and was compressed to uniform thickness by placing 100gm weight for 5 minutes. Weight was added to the pan. The time required to separate the two slides, i.e. the time in which the upper glass slide moved over the lower slide was taken as measure of spreadability. It was Calculated using the formula:

**Spreadability =  $m \cdot l / t$**

**m-Weight tide to upper slide ,l - Length moved on the glass slide , t-time taken.**

## 6. Irritancy test

Mark the area (2 cm<sup>2</sup>) on the left-hand dorsal surface. Then the cream was applied to that area and the time was noted. Then it is checked for irritancy, erythema, and edema any for an interval up to 24 h and reported.

## 7. Washability

A portion of lotion was applied over the skin of hand and allowed to flow under the force of flowing tap water for 10 minutes. The time when the lotion completely removed was noted.



**EVALUATION TABLE:**

Sr. No.	Test	Oservation
1.	Appearance	Lotion type
2.	Colour	Yellowish
3.	Odour	Pleasant
4.	pH	5
5.	Spreadibility	Easily spreadable
6.	Irritancy test	Non-irritable & non allergic on the skin
7.	Washability Test	Easily washable from the skin by using water
8.	Stability Test	No microbial growth is observed After 5 months

**RESULT AND DISCUSSION:**

The herbal lotion was prepared and subjected to evaluation of various parameters. The herbal formulation was yellowish in colour. The pH was throughout the study is between 5-6 which lies in the normal pH range of the skin and the lotion did not produce any irritation upon application to the skin. The preparation was stable under normal storage conditions. These results indicated that the herbal lotion had no adverse effects on the topical area. It is showed this herbal preparation is useful in inflammation, and anti-aging.

**CONCLUSION:**

In this study, a formulation of herbal lotion was formed and evaluated in terms of their organoleptic properties [Appearance, Color and odor] and physiological parameters pH, Sprediability, easy of removal and irritancy test. The present work focus on the herbal extracts Provide nutrients necessary for the healthy skin. There are numerous herbs available naturally having different uses in cosmetic preparations for skincare as antioxidants. The present study revealed that herbal cosmetic are very safe and does not produce any toxic and adverse reactions compare to marketed cosmetics products. Herbal Lotion we will avoid skin problems.

This research work unimpeachably exposed the several challenges associated with allopathic lotion such as side effect, high cost and sensitivity. The herbal lotion of crude drugs with the unique properties and prepared by simple W/O methods and less equipment are required. In which the research of study was concluded that poly formulation containing F2 formulation shows better results than other herbal formulation and represent the future scope of herbal formulation. In which herbal lotion was successfully prepared, characterized and evaluated for various aspects.

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