



# FORMULATION AND EVALUATION OF MOISTURIZING CREAM

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**ABSTRACT:** The main objective is to formulate and evaluate moisturizing cream. Firstly fresh part of plant collected after that extraction done so that proper formulation should be done. The importance of herbs in the cosmeceutical has been extensively increased in personal care system and there is a great demand for herbal cosmetics now days. Herbal cosmetics are a non toxic, safe, effective formulation which improves patient compliance by the utilization of herbal extracts and hence it would be highly acceptable than synthetic ones. The formulated cream has good results on spread ability, wash-ability, pH, irritancy and has good therapeutic effects. There is also no phase separation during observation of moisturizing cream. This prepared moisturizing cream is safe for use and it is developed from herbal products. Herbal cosmetics are widely accepted in a belief that it is safe for use and has no side effect. All the chemicals used in formulation makes the cream very stable and helps in making good cream.

**KEYWORDS:** Extraction, Drug, Dosage form, Herbal, Moisturiser

## **INTRODUCTION:**

Herbal moisturizing cream are the semi-solid dosage form which are applied on the skin to protect it from various skin problem. Moisturizing cream is prepared by using various Herbs powders like beal, amla, tulsi, Neem, Turmeric & Neem which have different properties and functions helps in skin protection. The prepared moisturizing cream has been evaluated for better efficacy and safety. The current generation of people is more conscious about their health, including having a regular skincare routine. A proper skincare routine will ensure that your face looks clear and fresh regardless of the pollutants and other damages that might come your way. It regularly removes the excess oil and dirt content present within your pores, prevents the occurrence of acne, reduces sunspots and makes your skin look bright and plump.

## **Benefits of doing Skin care daily**

Skin care is an essential technique used for maintaining the health condition of the skin available on your face and body. A good skincare routine will allow you to maintain a healthy and bright appearance. From washing your face regularly to applying moisturiser, various proteins need to be included in your regular skincare routine. Understanding these will allow you to maintain glow

## How To Build Up Your Skin care Routine

If you are looking to maintain a proper skin care regimen, you have to follow it regularly. Some of the goals you can set up includes, Hydrate your skin regularly using most arisen both in the morning and also in the evening. The night creams you are using should be suitable for your skin type and condition. Always wear a sunscreen lotion with a high range of SPF. This will protect the skin from harmful UV radiation along with other pollution. Cleanse your skin regularly once in the morning in the evening. Apply active either as a single product or as a combination depending upon your requirements and skin conditions. Each cream you use should be subjected to a patch test for regular practice and avoid contact dermatitis.

If you have any acne-related problem or any specific skin condition, then you can set up certain skin goals to follow regularly. All these goals can improve your needs but on a slower basis. But through regular practice, anyone can improve their skin and appear beautiful.

### For very dry to dry, sensitive skin:

Rich cream is clinically proven to provide intense and lasting 48-hour hydration. Specially formulated with a dermatologist-backed blend of niacinamide (vitamin B3), panthenol (pro-vitamin B5) and hydrating glycerin to help improve the resilience of sensitive skin. Significant skin barrier improvement in 3 days with complete restoration in 1 week 97% of users reported that skin seems more hydrated Dermatologist tested and clinically proven to be gentle on sensitive skin. To discuss moisturizers of the skin, we need a brief discussion on the skin barrier structure and function and the mechanism of maintaining water balance. The stratum corneum, the outermost layer of the epidermis, is the primary physiologic barrier of the skin and is of critical importance in maintaining water balance. The role of water within the stratum corneum is pivotal to maintaining normal skin integrity and turnover. Water allows for the increased flexibility of the tissues and is a crucial component of the enzymatic reactions responsible for cleavage of the corneodesmosomal connections between corneocytes during the desquamation process. Below a critical water concentration, the corneodesmosomal connections remain intact, which results in a build-up of corneocytes and the appearance of dry, flaky skin.

The main job of a moisturizer is to seal products into the skin, locking all the moisture and nutrients your skin needs. They can be quite a complicated chemical mixture. They may contain naturally occurring skin lipids and sterols, artificial or natural oils, emollients, lubricants etc.

Moisturizers are not always needed or used. They are most useful for persons with dry skin. Moisturizers are designed to either impart or restore hydration in the stratum corneum, which is an interactive, dynamic structure, and maintenance of hydration can impact its barrier function.

Anything which are used to enhance the beautification or improvement of appearance is known as Cosmetics. The word "Cosmetics" arise from Greek word „Kosmoticos“ which means adore since that time any material used for the beautification or improvement of appearance is known as cosmetics.

In the modern days, Cosmetics are the essential part of the life. The role of Cosmetics in everyday life may create acceptability after World War-II. The Cosmetic is generally external preparation and are made to apply

to the external part of the body.

In other words “They may be applied to the Skin, hair and nails for the purpose of wearing, colouring, softening, cleansing, preserving, removal and protection.

### **Cosmetics can be classified in 4 categories.**

**Cosmetics for Skin :-** Cosmetics designed for skin care can be used to cleanse, exfoliate and protect the skin, as well as replenishing it, by the use of cleansers, toners, serums, moisturizers, eye creams and balms. Cosmetics designed for more general personal care, such as shampoo, soap, and body wash, can be used to cleanse the body.

- a. **Cosmetics for Hair :-** Cosmetics are an important tool that helps to increase patient's adherence to alopecia and scalp treatments. This article reviews the formulations and the mode of action of hair cosmetics: Shampoos, conditioners, hair straightening products, hair dyes and henna; regarding their prescription and safety. The dermatologist's knowledge of hair care products, their use, and their possible side effects can extend to an understanding of cosmetic resources and help dermatologists to better treat hair and scalp conditions according to the diversity of hair types and ethnicity.
- b. **Cosmetics for Nail :-** Nail cosmetics include a broad range of beauty products that promote the appearance and durability of fingernails and toenails. It basically includes the beauty products used on and around nails. The global market for nail cosmetics is increasing incredibly, which shows that people have considered nail care healthy. This regulation applies to any personal hygiene product, from the hand soap we use at home to the hand gel we use after going to the bathroom at a shopping center or restaurant.
- c. **Cosmetics For Hygiene :-** This regulation applies to any personal hygiene product, from the hand soap we use at home to the hand gel we use after going to the bathroom at a shopping center or restaurant.

## **MATERIALS AND METHODS**

**Materials:** Materials used in this formulation are Bael, Amla, Turmeric, Neem, Beeswax, Liquid paraffin, Borax, Methyl paraben and rose oil. All materials are obtained from fresh leaf and plants.

### **METHODS:**

#### **Extraction**

1. **Extraction of Bael:-**
  - a. Take the fresh leaves.
  - b. Wash with water.
  - c. Make the paste of leaves by using grinder.
  - d. Place the paste in beaker with some other water.
  - e. Heat the beaker upto 10-15 minutes.
  - f. Then filter it.

**2. Extraction of Amla:-**

- a. Take the fresh fruits of amla.
- b. Wash with water.
- c. Make the paste of amla by using grinder.
- d. Place the paste in beaker with some water.
- e. Heat the beaker 20-30 minutes.
- f. Then filter it.

**3. Extraction of Tulsi:-**

- a. Take the fresh leaves of tulsi.
- b. Wash with water.
- c. Make the paste of tulsi by using water.
- d. Heat the beaker 10-15 minutes.
- e. Filter it.

**4. Extraction of Turmeric:-**

- a. Take 10 gm of turmeric powder.
- b. Take some amount of water.
- c. Place them in beaker.
- d. Heat the beaker 10-15 minutes.
- e. Then filter it.

**5. Extraction of Neem.**

- a. take fresh leaves of neem.
- b. grind it and make a paste.
- c. place it in beaker.
- d. add some amount of water.
- e. heat the beaker 10 125 minutes.
- f. then filter it

**Formulation of Cream :- Consists****of two phase:****1. Oil Phases:-**

- Weigh the proper amount of bee wax as shown in the table.
- Take the liquid of paraffin oil.

- Place them in a beaker.
- Heat the beaker upto 75 degree Celsius.
- During the heating beaker, proper Stirring should be done.

## 2. Water Phase:-

- Weigh the proper amount of Borax.
- Place it in another beaker.
- Take adequate amount of water so that clear transparency can be seen, it means it is properly dissolved in water
- Heat the beaker upto 75 degree Celsius.
- Proper stirring should be done during heating.
- Also add methyl paroben (anti-oxidant) during heating.

## Mix oil phase and water phase :-

- After heating the both beaker i.e. oil phase breaker and water phase breaker upto 75degree Celsius.
- Mix slowly by complete stirring.
- Now add the extract :-
  - a. Tulsi
  - b. Neem
  - c. Turmeric
  - d. Beal
- During adding the extract stirring is also done.
- Also add the rose oil to get a fragrance.
- Stir till it becomes a semi-solid dosage form.

## Evaluation of moisturizing Cream:-

### Physical Evaluation:-

This is the test which is used to determine the external appearance(morphology) of the cream.

Colour :- slightly white

Odor :- rosy

Texture :- smooth

### Irritancy:-

This is a test which is performed in living beings to check the qualityof creams as well as chemicals of creams so that it is harmful or not.

### For the test

Mark the area in hand.

Apply the cream in the marked area.

Leave the formulation for sometime.

Then, we can easily be checked the irritancy.

**PH test:-**

This is the test which is used to check the acidity levels of cream.

Generally, It is checked by two methods.

Digital pH meter

pH paper

**During pH evaluation of cream:-**

The cream was kept in digital pH meter.

It is found that pH of moisturizing cream is 4.8

**Washability:-**

This is the test which is used to check the removal of cream. It is very important to remove the cream after applied. Apply the cream on the hand. Wash with water. Note the time taken to remove the cream.

**Viscosity:-**

This is the test which is basically used to check or predict how materials used in cream with behave in the real world. It is mainly used to check the efficiency. This viscosity was checked with the help of Brock field viscometer.

**Phase separation:-**

This test is basically checked in 24 hours to 30 hours. For this we have to put cream in a closed container, at a temperature (30-80 degree Celsius). Keep the formulation away from light.

**RESULT AND DISCUSSION****FORMULATION OF CREAM:**

S.N.	Ingredients	F1	F2
1	Beal	5 gm	6 gm
2	Amla	3 gm	4 gm
3	Tulsi	2 gm	3 gm
4	Turmeric	1.5 gm	2 gm
5	Neem	0.5 gm	1 gm
6	Bee wax	4 gm	5 gm
7	liquid paraffin	10 ml	15 ml
8	Borax	0.3 gm	0.4 gm
9	Methyl paraben	0.02 gm	0.02 gm
10	Rose oil	qs	qs

**EVALUATION OF CREAM:**

After formulation and evaluation of herbal moisturizing cream, we observed various types of results with the help of various methods or techniques like physical evaluation, irritancy, phase separation, greasiness, viscosity, pH, washability and stability.

**Table No. 2: Physical evaluation of Moisturizing cream**

S. No.	Parameters	F1	F2
1	Colour	Slightly white	Slightly white
2	Texture	Smooth	Smooth
3	State	Semisolid	Semisolid

**Table No. 3: Irritancy, pH and Phase separation evaluation of Moisturizing cream**

Sr. No.	Formulation	Irritant Effect	pH
1	F1	Nil	4.5
2	F2	Nil	5.2

**Table No. 4: Washability, Viscosity and Greasiness of Moisturizing cream**

Sr. No.	Formulation	Washability (Seconds)	Viscosity (cps)
1	F1	10	1345
2	F2	9	2345

**Table No. 5: Phase separation and Greasiness**

Phase Separation	Greasiness
Phase Separation	Greasy
No Phase Separation	No Greasy
No Phase Separation	No Greasy

## SUMMARY AND CONCLUSION

The importance of herbs in the cosmeceutical has been extensively increased in personal care system and there is a great demand for herbal cosmetics now days. Herbal cosmetics are a non toxic, safe, effective formulation which improves patient compliance by the utilization of herbal extracts and hence it would be highly acceptable than synthetic ones.

The formulated cream has good results on spread ability, wash-ability, pH, irritancy and has good therapeutic effects. There is also no phase separation during observation of moisturizing cream. This prepared moisturizing cream is safe for use and it is developed from herbal products.

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