

## "Formulation, Optimization, and Evaluation of a Topical Emulsion-Based Vanishing Cream"

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### ABSTRACT:

The purpose of the present research work is to formulate and evaluate vanishing herbal cream. Herbal cream offers several advantages over other synthetic creams. The majority of vanishing creams prepared from synthetic origin. (for e.g., acyclovir, triamcinolone, calcipotriene, triethanolamine, etc) gives extra fairness to face, but has several side effects such as itching, burning sensation and many other allergic reactions. Herbal creams do not have such side effects and it gives natural fairness to skin. Further studies are needed to investigate this formulation for its Better performance.

**Keywords:** Cinnamon Powder , Vanishing cream, Moisture

### I. INTRODUCTION:

A cream is a preparation usually for application to the skin. Creams for application to mucous membranes such as those of the rectum or vagina are also used. Creams may be considered pharmaceutical products, since even cosmetic creams are manufactured using techniques developed by pharmacy and unmedicated creams are highly used in a variety of skin conditions. the use of the fingertip unit concept may be helpful in guiding how much topical cream is required to cover different areas. Creams are semi-solid emulsions of oil and water.

Vanishing creams get their name from the fact that they seemed to disappear when spread onto the skin. They Reduce loss of moisture from dry skin. Smoothens the skin and keeps it soft.

Definition - a cosmetic cream that is colourless once applied, used as a foundation for powder or as a cleansing or moisturizing cream.

### ❖ Ideal Characteristics of Vanishing Cream :

1. It should have high melting point.
2. It should be pure white in colour.
3. It should possess a very slight odour.
4. Rubbed easily on the skin.

### ❖ Advantages :

1. It help to keep the skin moisturized.
2. Softens the skin and provides a shiny texture to the skin.
3. In dry and cold areas, a lot of people use vanishing creams to keep their skin from becoming rough and scaly.
4. Prevents skin roughening.
5. It is sometimes used as the base for cosmetics and make-up and even just plain foundation.

### ❖ Disadvantages :

1. Vanishing creams are not to be used all the time.
2. Skin allergies may arise from the compounds in the cream which depends on individual person skin type

### ❖ Objectives :

The objective of this research work was to formulate the cream which does not cause any side effects or adverse reactions. The cream also acts as a fairness expert in day to day life by removing aging signs. It also possesses nutritional value which provided required nutrients to the skin. A herbal cream that can give effective protection to skin and free from any toxicity or toxic residue or any irritation when regularly used and should also be cosmetically acceptable. Vanishing creams get their name from the fact that they seemed to disappear when spread onto the skin. They are an oil-in-water O/W emulsion.

## II. INSTRUMENTAL STUDY :

Sr.no.	Instruments Used	Make and Model No.
1.	Digital Balance	CONTECH Instruments Ltd.
2.	pH meter	CHEMILINE and CL 180
3.	Hot Air Oven	BIO-TECHNICS INDIA

Table No.1

## III. MATERIALS USED :

Ingredients	Role	F1	F2	F3
1.Cinnamon Powder	Anti Ageing Skin Whitening	1.5 g	2 g	2.5 g
2.Saffron	Moisturizing Agent	15 mg	15 mg	15 mg
3.Stearic Acid	For Saponification	1.5 g	1.5 g	1.5 g
4.Sodium Hydroxide	Texture Modifier	0.10 g	0.12 g	0.14 g
5.Glycerine	Humectant Moisturizer	0.5 g	0.5 g	0.5g
6.Rose Oil	Perfume	q.s	q.s	q.s
7.Distilled Water	Vehicle	6 g	6.5 g	7 g
8.Methyl Paraben	Preservative	0.01 g	0.01 g	0.01 g

Table No.2

## IV. FORMULATION :

- Weigh all ingredients properly.
- Melt stearic acid at 70 degrees in separate beaker.
- Add glycerin and again maintain temperature at 70 degrees.
- In another beaker dissolve Sodium hydroxide in water and add Cinnamon Powder with saffron. Then, maintain temperature at 70 degrees.
- Add second part solution in first part dropwise with continuous stirring at 70 degrees.
- Cool with continuous stirring and add perfume when temperature 35 degrees. 6. Stir well, fill in proper container air tight container.

## V. EVALUATION PARAMETER :

- 1) Organoleptic Properties:
  - a. Colour
  - b. Odour
  - c. Consistency- Check grittiness, softness,
  - d. Homogeneity & Texture- it was tested by pressing a small quantity of formulated cream between thumb and index figure.
- 2) Grittiness - Cream was evaluated if it has gritty particles.
- 3) pH-Using a digital pH metre, the pH value of vanishing cream is determined. A pH reading is made by dipping an electrode into the appropriate gel formulation after one gramme of gel has been

dissolved in 100 ml of distilled water and left to stand for two hour

4) Skin Irritation- The cream was applied on 5 volunteers and checked if there was skin irritation after few minutes.

5) Extrudability – Small amount of gel was taken into a collapsible ointment tube. One end closed and the other end kept opened. Slight pressure was applied on the closed side. The time taken to extrude and the amount of gel extruded was noted.

## VI. RESULT:

The vanishing cream was easy to apply and wash effectively on all skin types. The formulated vanishing cream was evaluated by different physical properties.

### 1. Organoleptic Properties

- a. Colour – Creamish yellow
- b. Odour - Characteristic odour
- c. Consistency - Good
- d. Homogeneity & Texture - Smooth Grittiness Cream was found to have no gritty particles

### 2. Grittiness

Cream was found to have no gritty particles

### 3. pH

The measurements of pH of the formulation were done and it was observed that the pH of formulations F1 to F3 was found to be in the range

of 6.7 to 7. From the values of pH, it is concluded that the vanishing cream was compatible with skin.

#### 4. Skin Irritation

The formulated vanishing cream from F1-F3 did not show any skin irritation when applied on the cheek area of group of 5 volunteers.

#### 5. Extrudability Easily extruded.

Evaluation Parameters	F1	F2	F3
Colour	CreamishBrown	CreamishBrown	CreamishBrown
Odour	Characteristic	Characteristic	Characteristic
Consistency	Good	Good	Good
Homogeneity and texture	Smooth	Smooth	Smooth
Grittiness	Slight grittiness	No	No
pH	5.6	6.4	5.9
Skin irritation	no	no	no
Extrudability	Easily extruded	Easily extruded	Easily extruded

Table No.3

### VII. CONCLUSION :

To overcome the problems regarding with skin or dull skin, tanning, premature aging, blackheads we formulate the **vanishing cream** with goodness of natural ingredients like Cinnamon Powder and saffron. Cinnamon Powder has moisturizing and anti-aging properties. It also helps enlighten the skin tone, combat acne, and other skin problems. Saffron gives sun damage protection, moisturizing, skin brightening, and skin texture improving effect. The evaluation parameters for vanishing cream were performed and batch **F2** was found to be more consistent. Therefore, formulated vanishing cream gives skin moisturization, whitening effect, glowing skin, anti-acne effect, and anti-aging effect.

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