International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

# Formulation and Evaluation of Ghee Moisturizer

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**Abstract:**
The current study uses ghee as the main emollient in the creation and assessment of a natural moisturizing cream. Ghee has superior moisturizing and skin-nourishing qualities due to its abundance of vital fatty acids and antioxidants. Standard emulsification procedures were used to create the cream, which also included honey and aloe vera as natural components to improve skin benefits. Key characteristics of the created cream, such as pH, stability, viscosity, spreadability, and skin irritation, were assessed. The results showed that the ghee-based moisturizer was an excellent option for natural skincare applications since it had acceptable spreadability, favorable physicochemical qualities, and no negative skin reactions. Ghee, a traditional Ayurvedic ingredient, is known for its moisturizing and nourishing properties. This study aimed to formulate and evaluate a ghee-based moisturizer for skin hydration. The moisturizer was formulated using ghee, natural oils, and emollients. Physicochemical properties, stability, and skin hydration efficacy were evaluated. Results showed the moisturizer had good spreadability, pH, and viscosity. Stability studies indicated no significant changes in appearance, pH, or viscosity. Skin hydration tests demonstrated significant improvement in skin moisture levels. The ghee-based moisturizer showed potential as a natural, effective, and safe product for skin hydration.

**Keywords:** Ghee, Ayurveda, Cow ghee, Moisturizing cream, Formulation

## Introduction:

Over the years, Ayurveda has evolved to meet global healthcare needs, offering a vast and comprehensive medical system. One of its most revered texts, authored by Acharya Charaka, describes the benefits of ghee in great detail. Ghee is known to enhance memory, intelligence, reproductive health, and overall vitality. It also supports kapha (which is responsible for bodily cohesion), ojas (the essence of life), and medas (fat tissues). In Ayurveda, agni is the fundamental force behind digestion, metabolism, and transformation within the body. Ghee is recognized for its role in alleviating various conditions, including fever, mental disorders, tuberculosis, poisoning, and imbalances of vata (the bio-energy associated with movement and heat). In modern skincare and pharmaceutical formulations, different types of cream bases are used for developing topical applications. These bases serve as carriers for active ingredients, ensuring effective absorption and therapeutic benefits.[1]

Before modern allopathic medicine emerged, traditional medical systems were the main source of healthcare worldwide. Allopathic medicine quickly became popular because it used advances in biology and chemistry for research and treatment. Today, it plays a major role in healthcare. However, traditional medicine continues to be an important part of medical care and treatment. Allopathic medicine often uses

single compounds, which can sometimes cause side effects. In Ayurveda, Panchagavya—five products from cows (milk, curd, ghee, urine, and dung)—are known for their important role in treating various diseases and promoting overall health. [2,3] ghee is an ancient Ayurvedic preparation made by washing cow ghee 100 times with purified water in a copper vessel while chanting Vedic mantras. This process transforms the ghee into a smooth, odorless, and silky cream. It has a unique ability to deeply penetrate all seven layers of the skin without clogging pores, making it highly effective for skincare.[4] Ghee is a pure, fat-rich product made by heating milk or its products without adding any preservatives or coloring agents. It is known by different names around the world, such as maslee and samna in the Middle East, roghan in Iran, meshho in Aramea, samin in Sudan, and samuli in Uganda. Ghee is widely used for making sweets, cooking, frying, topping sauces and coffee, and even as food for children.

The demand for safe and natural skincare products has renewed interest in traditional herbal remedies, especially in Ayurveda. Ghee, a special medicated ghee, is well known for its deep moisturizing and nourishing effects. Made by blending herbs with ghee, it provides a holistic and effective approach to skincare. [5,6]

Moisturizing creams play an important role in skincare by hydrating the skin, preventing dryness, and improving overall skin health. However, many conventional creams contain synthetic ingredients, raising concerns about their long-term effects on the skin and the environment. This has led to a growing interest in natural alternatives, such as Ayurvedic formulations, for healthier skincare options. [7,8]

In Ayurveda, ghee is very important. It is used both to carry active ingredients into the body and as a base to prepare different medicines. Ayurveda also recommends taking ghee along with other treatments. For example, Brahmi Ghrita is used to support brain function, Vasa Ghrita helps with breathing problems, Shatadhauta Ghrita is used for skin issues, Bhallatakadi Ghrita helps heal wounds, and Kaamdev Ghrita is used for sexual health problems etc. [9,10] It is also used as a base for applying medicines externally. Studies have analyzed its properties and the changes that occur during the washing process.

In India, clarified butter is known as Ghee, which is the main cooking oil used in various regional cuisines. It is also used in medicine and plays a role in many Hindu religious rituals. Due to its many benefits, Ghee has been highly valued for centuries. When we talk about Ghee, we usually refer to Goghrita (cow's ghee). The products are made while chanting, so they carry positive vibrations that are absorbed by your skin. Each product is made with the highest standards of purity, authenticity, and quality. In addition to common skin problems, Ghee products can also help treat conditions like eczema, rosacea, and acne. So, they offer a natural and complete solution for all your skin concerns. [12,13] When used as a base for making creams, it works well with other active ingredients to enhance their effects. Ghee, a traditional Ayurvedic blend of herbs, is often used to help manage mental health issues like insanity, epilepsy, and unexplained psychological disorders.[14] Similarly, Hingusauvarchaladi Ghee and its version called Saptarvartita Hingusauvarchaladi Ghee have shown effects that help prevent seizures.[15] Darvhi Ghee has been found to help with wound healing,[16] while Jatyadi Ghee and similar products show anti-inflammatory effects.[17]

- **Benefits of ghee:**

1. Prevents skin aging.
2. Helps maintain the skin's natural moisture balance.
3. Protects the skin from harsh environments.
4. Keeps the skin safe and hydrated.
5. Cold creams smooth the skin and help remove makeup.

6. Used as a topical treatment for skin conditions.
7. Provides a protective oily layer and moisturizes the skin.
8. Easy to apply.
9. Low or no risk of changes in medication levels.
10. No special training is needed for use—simple to apply.
11. Effective while reducing the overall daily medication dose.
12. Ensures better treatment results with premium benefits.

- **Anatomy of skin:**

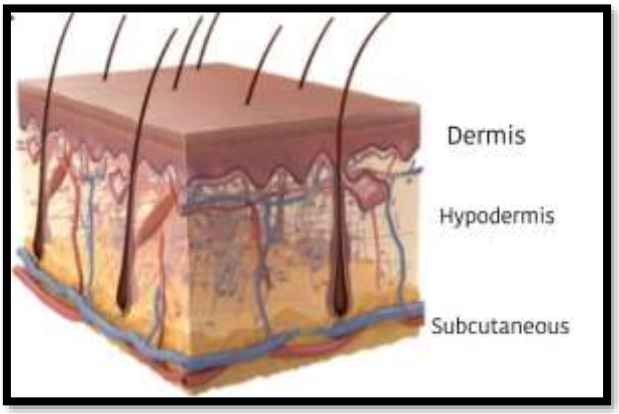



**Figure No 1. Anatomy of skin**

The skin is the largest organ of the human body, covering it completely. It acts as a protective barrier against heat, light, injury, and infections. The skin also helps regulate body temperature, stores fat and water, and prevents water loss. It blocks harmful microorganisms and helps produce vitamin D when exposed to sunlight. Skin varies in thickness, color, and texture across the body. For example, the scalp has more hair follicles, while the soles of the feet have none. The skin on the palms and soles is much thicker than on other areas. The skin has three layers, each with its own function.

- **Function of Skin: -**

1. The skin forms a protective, waterproof layer that shields the body from injuries, germs, chemicals, and harsh environmental conditions.
2. It helps control body temperature by producing sweat and adjusting blood flow in the skin.
3. The skin's lower layer (dermis) stores a lot of blood, about 8–10% of the body's total blood in a resting adult.
4. It lets us feel things like touch, pressure, vibration, tickling, heat, cold, and pain.
5. The skin gets rid of waste like salt and urea through sweat.
6. It helps maintain the balance of water and salts in the body.
7. Sunlight helps the skin make vitamin D from a substance called ergosterol.
8. It produces melanin, a pigment that gives skin its color, from a chemical called tyrosine.
9. The skin makes sweat and oil (sebum), which keep it soft and moisturized.
10. It stores fat, water, salts (like chlorides), and sugar for later use.[11]

- **Cream:**

A cream is a semisolid preparation used in pharmaceuticals that dissolves or distributes medicinal ingre-

dients. It can have different bases, such as oil-in-water or oil-in-oil, and is generally water-washable.

- **Moisturizing Cream:**

A moisturizing cream, also called an emollient, is a product designed to keep the skin hydrated, soft, and protected. It works like the natural oils (sebum) produced by healthy skin. The term "emollient" comes from the Latin word mollire, meaning "to soften."

- **Ghee Pharmacological action:**

Ghee has about 8% less saturated fat, which makes it easier to digest than other fats. It contains important vitamins like Vitamin A and Vitamin E, which act as antioxidants and help protect the body from damage. Vitamin A also keeps the skin and eyes healthy and helps prevent blindness. The essential fatty acids in Ghee support proper growth in the body. Ghee melts at around 35°C, which is lower than normal body temperature, making it easier for the body to absorb. It has a very high absorption rate of 96%, the highest among all oils and fats. When active ingredients are mixed with Ghee, they are digested and absorbed more easily. Since our cell membranes are made of fats, Ghee helps carry these ingredients into the cells, reaching even the mitochondria and other parts inside. It also contains beta-carotene and Vitamin E, which help fight harmful substances in the body. [18,19,20]

- **Plant and excipient profile:**

**1. Ghee:**

**Synonym:** Ghee, Tup

**Figure No 2. Ghee**

- **Biological Source:**

Ghee is made from milk through a step-by-step process. First, boiled milk (with its cream) is fermented using curd that contains *Lactobacillus* bacteria. This fermentation turns the milk into yogurt, which is then churned to separate the butter. The butter is further heated to remove moisture and impurities, leaving behind pure ghee.

- **Chemical Composition:**
  - Vitamins**:** A, D, E, and K
  - Phospholipids (important for cell function)
  - Enzymes**:** Lipase (helps break down fats)

- **Other Compounds:**
  - Carbonyls (affect flavor and aroma)
  - Hydrocarbons
  - Carotenoids (give ghee its yellow color)
  - Various fatty acids, including butyric, caproic, caprylic, lauric, palmitic, stearic, oleic, linoleic, and linolenic acids (these contribute to the texture, flavor, and health benefits of ghee).

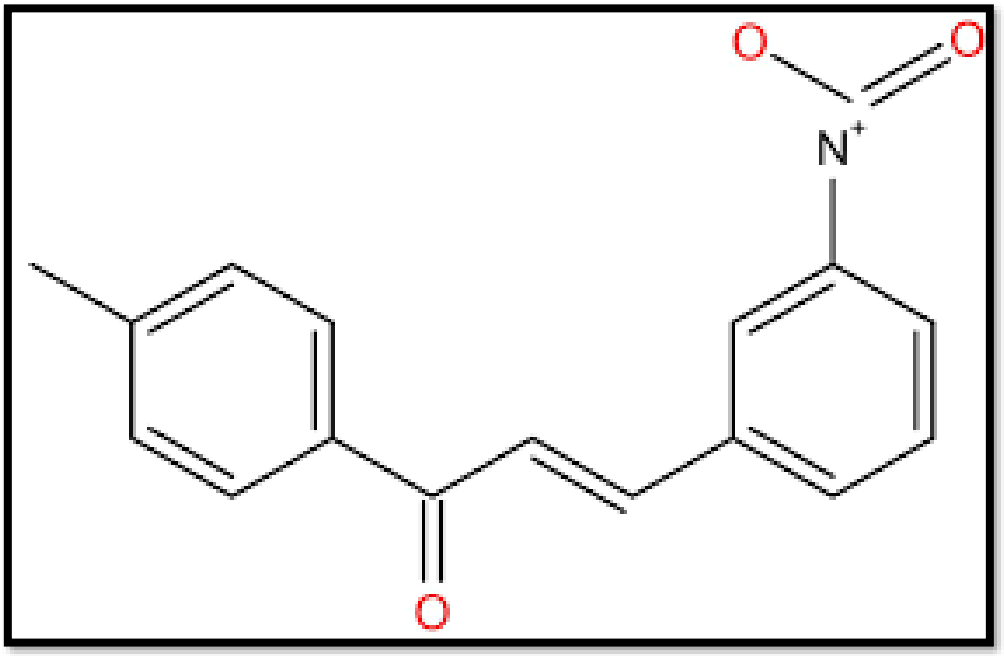
In simple terms, ghee is a rich source of vitamins and healthy fats, making it beneficial for nutrition and cooking

- **Uses of Ghee:**

1. Natural Moisturizer**:** Keeps the skin soft, hydrated, and glowing.
2. Aids Digestion**:** Supports a healthy gut and improves digestion.
3. Boosts Immunity**:** Strengthens the body's defense system.
4. Rich in Vitamins**:** Provides essential vitamins (A, D, E, and K) for overall health.
5. Fights Inflammation & Cancer: Contains anti-inflammatory properties that may help prevent diseases.
6. Safe for Lactose Intolerant People**:** Does not contain lactose, making it easy to digest.
7. Heals Burns**:** Helps in treating minor burns and wounds.
8. Promotes Healthy Skin**:** Nourishes and repairs skin for a healthy glow.

**2. Aloe Vera:**

- **Chemical Structure:**




**Structure No 1: aloe Vera**

- **Synonyms:** Aloe barbadensis Mill, Aloe indica Royle, Aloe perfoliata L. var. vera, Aloe vulgaris Lam.

**Figure No 3. Aloe Vera**

- **Biological Source:**

Aloe Vera is obtained from the juice of its thick leaves. The juice is collected by making cuts at the base of the leaves.

- **Biological Classification:**
  - **Kingdom:** Plantae (Plants)
  - **Division:** Magnoliophyta (Flowering plants)
  - **Class:** Liliopsida (Monocots)
  - **Order:** Asparagales
  - **Family:** Asphodelaceae
  - **Subfamily:** Asphodeloideae
  - **Genus:** Aloe
  - **Species:** Aloe barbadensis Miller (Aloe Vera)

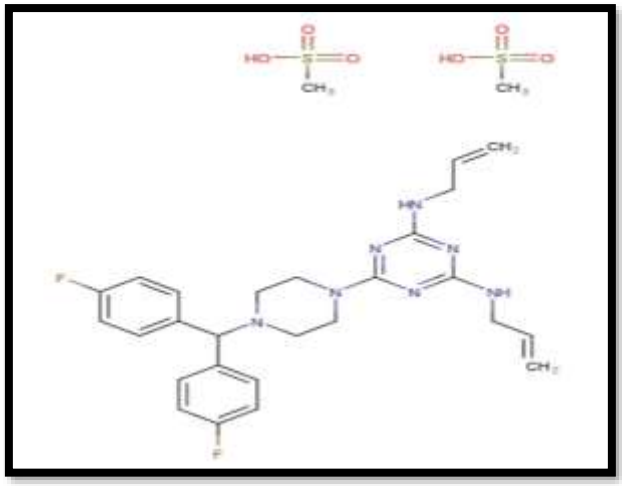
- **Chemical Composition of Aloe Vera:**
  - **Vitamins:** A, C, E, B1, B2, B3, B6, B12, and Folic Acid (important for skin, immunity, and overall health).
  - **Enzymes:** Amylase, Lipase, Catalase, and Bradykinase (help digestion, break down fats, and reduce inflammation).
  - **Minerals:** Calcium, Magnesium, Zinc, Iron, and Selenium (essential for bones, skin, and immunity).
  - **Sugars:** Mannose, Glucose, and Acemannan (support digestion and boost the immune system).
  - **Active Compounds:** Barbaloin, Aloesin, and Aloin (help with healing, skin care, and digestion).

- **Uses of aloe Vera:**
  - Soothes sunburn

- Helps lighten dark spots
- Moisturizes skin
- Supports healthy aging
- Helps clear acne
- Prevents and treats dandruff

**3. Almond Oil:**

- **Chemical Structure:**



**Structure No 2: Almond oil**

- **Synonym:** Almond oil

**Figure No 4. Almond oil**

- **Biological source:** pressing the seeds (nuts) of the almond tree
- **Biological Classification:**
- **Kingdom:** Plantae
- **Division:** Magnoliophyta
- **Class:** Magnoliopsida

- **Order:** Rosales
- **Family:** Rosaceae
- **Subfamily:** Prunoideae
- **Genus:** Prunus
- **Subgenus:** Amygdalus
- **Species:** Prunus dulcis

- **Chemical composition:**

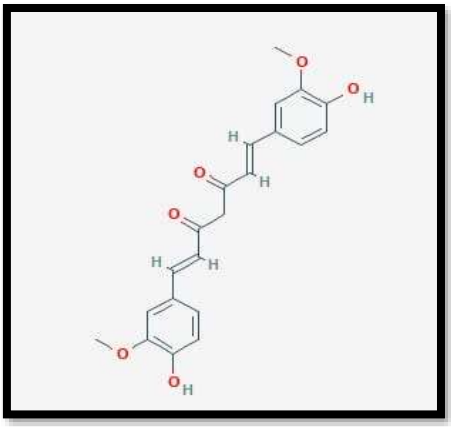
oleic, linoleic, palmitic, myristic, palmitoleic, oleic, margaric, stearic, linolenic, linoleic, arachidonic, gadoleic, behenic, and erucic acids

- **Uses:**

1. Nourishes and softens skin
2. Promote healthy hair growth
3. Reduced under eye puffiness
4. Natural makeup removal
5. Anti-oxidant property
6. It use in skin care

**4. Turmeric:**

- **Chemical Structure:**



**Structure No 3-Turmeric (Curcumin)**

- **Synonym:** Curcuma, Haldi

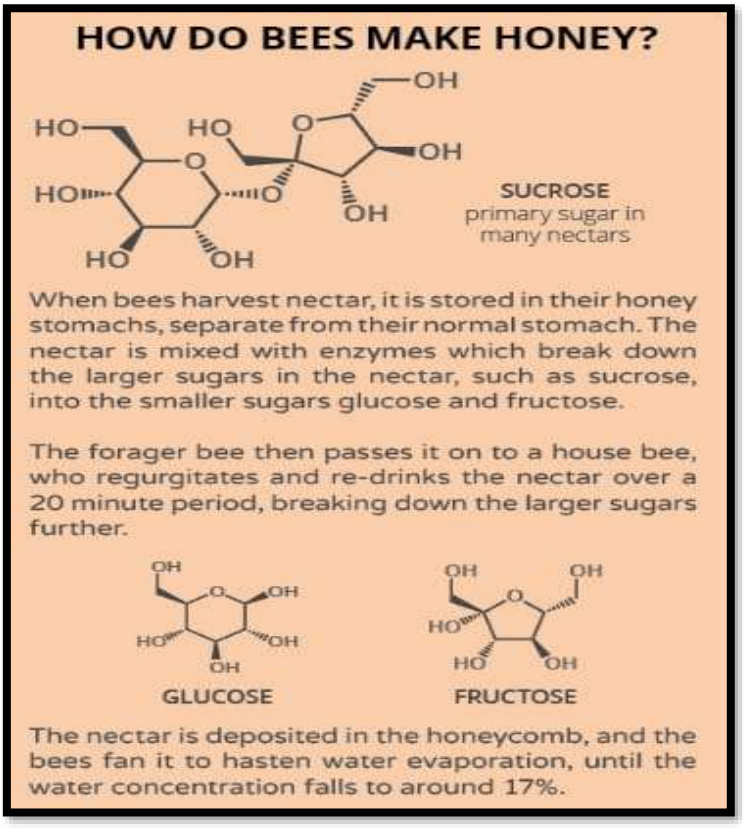
**Figure No 5. Turmeric**

- **Biological source:** dried rhizomes (underground stems) of the plant Curcuma longa
- **Biological Classification:**
  - **Kingdom-** Plantae
  - **Subkingdom-** Tracheobionts
  - **Super division-** Spermatophyta
  - **Division-** Mangoliophyta
  - **Order-** Zingiberales
  - **Family-** Zingiberaceae
  - **Genus-** Curcuma
  - **Species-** longa
  - **Scientific name-** Curcuma longa
- **Chemical composition:** carbohydrates, protein, fat, minerals, moisture, and essential oils
- **Uses:**

1. Natural anti-inflammatory
2. Powerful anti-oxidant
3. Improve skin health
4. Protect your body from free radical
5. Glow to the skin
6. Anti-cancer
7. Anti-fungal

**5. Honey:**

- **Chemical Structure:**



**Structure No 4- honey**

- **Synonym:** Madhu

**Figure No 6. Honey**

**Biological source:** The nectar of flowers and secretions from living parts of plant. Which are collected and transformed by honeybees.

- **Biological Classification:**
  - **Kingdom-** Animalia
  - **Phylum-** Arthropoda
  - **Class-** Insecta
  - **Order-** Hymenoptera
  - **Family-** Apidae
  - **Genus-** Apis
  - **Species-** Apis mellifera

**Chemical composition:** Sugars (fructose and glucose), water, and minor amounts of other substances like proteins, amino acids, enzymes, vitamins, minerals, and phenolic compounds

- **Uses:**

1. A natural moisturizer
2. A natural cleanser
3. A natural exfoliator
4. Skin-lightening agent
5. Treat sunburns
6. Treat acne and pimples
7. Reduce wrinkles
8. Brighter complexion and instant glow
9. Antimicrobial properties
10. Lightens scars
11. Remove blackheads
12. Honey will tighten the skin and keep it wrinkle-free

**6. Rose Water:**

- **Synonym-** Floral Water

**Figure No 7. Rose Water**

**Biological source:** Rose water, a hydrosol obtained through steam distillation, is derived from the sepals and petals of the Rosa damascena (Damask rose)

**Family:** Rosaceae

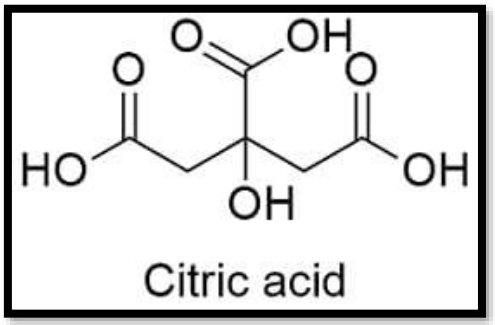
**Chemical composition:** 2-phenylethanol (69.7-81.6%), along with smaller amounts of linalool, citronellol, nerol, and geraniol.

- **Use:**

1. Soothes Skin / Eyes
2. Refreshing Fragrance
3. Keeps the skin hydrated
4. Great cleansing agent
5. Maintains healthy skin pH
6. Natural skin and hair conditioner
7. Helps remove dirt from the skin
8. Useful in making Face Pack/Ubtans
9. Made from premium roses of Kannauj

**7. Citric Acid:**

- **Chemical Structure-**




**Structure No5. Citric Acid**

- **Synonym:** 2-hydroxypropane-1,2,3-tricarboxylic acid or acidum citricum
- **Biological Source:** citrus fruits like lemons and limes, but also in other fruits, vegetables, and even animal tissues
- **Family:** Carboxylic Acid
- **Chemical Composition:** C6H8O7,2-hydroxypropane-1,2,3-tricarboxylic acid
- **Molecular weight:** 210.14
- **Mellting point:** 153 °C
- **Boiling point:** 310°C
- **Density:** 1.66g/ $cm^3$

- **Use:**

1. Its use as the antioxidant
2. Lightning skin tone
3. PH balancer
4. Preservative

- **Formulation table:**

**Table No 1. Ingredient with prescribed quality in the formulation of moisturizing cream**

| Sr no. | Ingredient | F1 | F2 | F3 | F4 |
|---|---|---|---|---|---|
| 1 | Ghee | 2.5gm | 3gm | 2.8gm | 3gm |
| 2 | Aloe vera gel | 1.4gm | 1.1gm | 1gm | 1.1gm |
| 3 | Almond oil | 0.2gm | 0.1gm | 0 | 0 |
| 4 | Citric acid | 0.2gm | 0.3gm | 0.3gm | 0.3gm |
| 5 | Rose water | q.s | q.s | q.s | q.s |
| 6 | Turmeric | 0.3gm | 0 | 0.4gm | 0 |
| 7 | Honey | 0.3 | 0.5 | 0.6gm | 0.5gm |

- **Preparation/ Procedure:**

Traditionally the washing is done in a steel vessel.

Ghee and mixing in water in steel vessel.

Separate the impurities from the ghee after each wash.

Repeat the mixing and separation process 100 times.

After washing ghee then adding the citric acid in it

↓

Repeat the mixing process then adding aloevera gel, honey

↓

Repeat mixing then adding the rose water. And repeat the mixing

↓

Store in clean and air tight container.

- **Evaluation Test:**

**1. The optimize base formulation is F4 – Because it is more effective for skin than other formulations**

**2. Physical evaluation:**

1. **Color-** Light cream
2. **Odour-** Characteristics
3. **Texture-** Smooth

**3. pH (Cream):**

Calculate the pH using the pH paper.

**Figure No 8. pH test**

**4. Viscosity:**

The formulation's viscosity was measured using spindle number four of the Brookfield viscometer at 100 rpm.

**5. Homogeneity:**

The cream was tested to see if it was even and smooth by:

1. Looking at it to check for any lumps or uneven parts.
2. Touching it to feel if the texture was smooth and well-mixed.

**Figure No 9. Homogeneity test**

**6. Removal:**

To see how easily the cream could be removed, the area where it was applied was washed with tap water.

**Figure No 10. Removal test**

**7. Irritancy test:**

1. The test area (skin) was chosen and kept facing up.
2. The oil was applied to that specific area.
3. The time it was applied was noted.
4. Applying, the skin was checked from time to time for up to 24 hours.
5. They looked for signs like irritation, redness **(**erythema**)**, or swelling **(**edema**)**.
6. The results were recorded after 24 hours.

**Figure No 11. Irritancy test**

**8. Stability testing:**

1. A quick test was done at room temperature for 7 days.
2. After that, the product was kept at a higher temperature (around 40°C) for 30 days.
3. Samples were stored at both room temperature and higher temperature.
4. The product was checked and studied on Day 1, Day 15, and Day 30 to see if anything changed.
5.

**Day-1** **Day-15** **Day-30**

**Figure No.12 Stability testing**

**9. Spreadability test:**

1. A small amount of the sample was placed between two glass plates.
2. A 100 g weight was placed on top for 5 minutes to make the sample an even layer.
3. The weight helped press the sample flat and spread it evenly.
4. Then, they measured the time it took for the top glass to slide over the bottom one.
5. This time showed how easily the sample spreads.

**Figure No 13. Spreadability test**

**10. Sensitivity Test:**

1. A small amount (0.1–0.3 grams) of the cream was applied to a piece of cloth or fiber (about 2–3 cm thick).
2. This was then placed on the skin of the hand or another surface, and the area was covered with a lid or patch.
3. Several patches were tested at the same time.
4. Some of the patches included ingredients similar to regular cosmetic products, while others were known to sometimes irritate the skin.
5. The patch was left on the skin for 24 to 72 hours.
6. If no reaction (like itching, redness, or swelling) happened, the same patch could be used again in the same spot, or a new one with the same cream could be applied.
7. This was repeated until a skin reaction was noticed or until it was clear the product was safe and caused no irritation.
8. If there was no burning or sores, the cream was considered safe to apply to that skin area.

- **Result & Discussion:**
- **Physical evaluation:**

The physical properties and formulated cream were judged by its colour, odour and appearance

**Table No 2. Physical properties of moisturizing cream**

| Test | F1 | F2 | F3 | F4 |
|---|---|---|---|---|
| Colour | Yellow | Light cream | Yellow | Light cream |
| Odour | Characteristics | Characteristics | Characteristics | Characteristics |
| Apperance | Semi-solid | Semi-solid | Semi-solid | Semi-solid |

**Table No 3. pH of Cream**

| Sr.no | Formulation | pH |
|---|---|---|
| 1 | F1 | 5.5 |

| | | |
|---|---|---|
| 2 | F2 | 5.4 |
| 3 | F3 | 5.6 |
| 4 | F4 | 5.4 |

The pH of the prepared cream was found to be around 5.4-5.6, which matches the natural pH of the skin (4.7-5.75). This means the cream is safe to use on the skin and is not likely to cause any side effects when applied.

**Table No 4. Irritation Test**

| **Test** | **F1** | **F2** | **F3** | **F4** |
|---|---|---|---|---|
| Irritation test | No irritation | No irritation | No irritation | No irritation |

Applying the formulated cream to the back of the left hand for 24 hours does not cause any irritation, swelling, or skin problems.

**Table No 5. Sensitivity Test**

| **Test** | **F1** | **F2** | **F3** | **F4** |
|---|---|---|---|---|
| Sensitivity test | Nil | Nil | Nil | Nil |

A patch test was used to check for skin sensitivity. Several patches were placed on different areas of the skin and left there for 24 to 72 hours. No signs of sensitivity, such as redness, swelling, or rashes, were observed.

**Table No 6. Stability Test (F1)**

| **Day/ Test** | **$0^{th}$ day** | **$15^{th}$ day** | **$30^{th}$ day** |
|---|---|---|---|
| Physical appearance | Semi-solid | Semi-solid | Semi-solid |
| Texture | Ok | Ok | Ok |
| Colour | Light cream | Light cream | Light cream |
| Odour | Characteristics | Characteristics | Characteristics |
| pH value | 5.4 | 5.4 | 5.5 |
| Thermal stability | Ok | Ok | Ok |
| Degradation of product | Nil | Nil | Nil |

**Table No 7. Stability Test (F2)**

| **Day/ Test** | **$0^{th}$ day** | **$15^{th}$ day** | **$30^{th}$ day** |
|---|---|---|---|
| Physical appearance | Semi-solid | Semi-solid | Semi-solid |
| Texture | Ok | Ok | Ok |
| Colour | Light cream | Light cream | Light cream |
| Odour | Characteristics | Characteristic | Characteristic |

| | | | |
|---|---|---|---|
| pH value | 5.4 | 5.4 | 5.5 |
| Thermal stability | Ok | Ok | Ok |
| Degradation of product | Nil | Nil | Nil |

**Table No 8. Stability Test (F3)**

| **Day/ Test** | **0th day** | **15th day** | **30th day** |
|---|---|---|---|
| Physical appearance | Semi-solid | Semi-solid | Semi-solid |
| Texture | Ok | Ok | Ok |
| Colour | Light cream | Light cream | Light cream |
| Odour | Characteristic | Characteristic | Characteristic |
| pH value | 5.4 | 5.4 | 5.5 |
| Thermal stability | Ok | Ok | Ok |
| Degradation of product | Nil | Nil | Nil |

**Table No 9. Stability Test (F4)**

| **Day/ Test** | **0th day** | **15th day** | **30th day** |
|---|---|---|---|
| Physical appearance | Semi-solid | Semi-solid | Semi-solid |
| Texture | Ok | Ok | Ok |
| Colour | Light cream | Light cream | Light cream |
| Odour | Characteristic | Characteristic | Characteristic |
| pH value | 5.4 | 5.4 | 5.5 |
| Thermal stability | Ok | Ok | Ok |
| Degradation of product | Nil | Nil | Nil |

The prepared formulations (F1, F2, and F3) were tested for stability over a period of 30 days. During this time, no changes were observed, showing that the formulations remained stable and are safe to use on the skin.

**Table No 10. Removal test**

| **Test** | **F1** | **F2** | **F3** | **F4** |
|---|---|---|---|---|
| Removal test | Easily remove | Easily remove | Easily remove | Easily remove |

The formulation was applied to the back of the skin and then rinsed off with tap water. It was easily removed without any difficulty.

**Table No 11. Viscosity**

| Test | F1 | F2 | F3 | F4 |
|---|---|---|---|---|
| Viscosity | 27500-26100 | 28271-27345 | 29450-28302 | 29200-28941 |

The cream had a viscosity between 29450-26100 cps, which means it can be spread easily with little effort. The viscosity of the cream was within the acceptable range.

**Table No 12. Homogenicity**

| Test | F1 | F2 | F3 | F4 |
|---|---|---|---|---|
| Homogenicity | Good | Good | Good | Good |

The formulation was checked for uniformity by looking at it and feeling it. It looked smooth and felt good to the touch.

**Table No 13. Spreadability Test**

| Test | F1 | F2 | F3 | F4 |
|---|---|---|---|---|
| Spreadability | Good | Good | Good | Good |

The spreadability test showed that the formulation spreads easily and smoothly.

## Conclusion

Ghee moisturizing cream is a natural, nutrient-rich skincare option that offers deep hydration and nourishment. it helps soothe dry skin, promote softness, and improve skin elasticity. Its gentle, chemical-free composition makes it suitable for dry skin type, including sensitive skin. As an age-old remedy with modern relevance, ghee-based moisturizers present an effective and maintaining healthy, glowing skin. The development and testing of a moisturizing cream using ghee as a base showed good results in terms of quality, stability, and effectiveness. Using Ayurvedic ingredients provides a natural and healthy way to care for the skin, while also avoiding synthetic chemicals and supporting eco-friendly practices. These traditional Ayurvedic formulations in skincare.

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