

Formulation and Evaluation of Turmeric Lotion

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Abstract: The formation is applied directly to skin treat skin condition using topical medication delivery method. Lotion unique delivery system can help overcome this. Lotion is used to treat acne and fungal infection on skin.

Turmeric (circumstances long) is one of the spices that have been used traditionally in centuries. The active compound of curcumin in turmeric are anti-inflammatory, anti -fungal, anti-microbial. The utilization of turmeric rhizome as a cosmetic component lotion or cream is believed to be able to enhance the efficacy of these cosmetics. This study aimed to describe the potential of turmeric rhizome extract in cosmetic preparations and lotion. The combination of these properties makes it an attractive choice for use in cosmetics a cream specifically designed for wound healing on the skin. Studies have shown that curcumin in turmeric can reduce sebum production by the sebaceous glands, reducing the likelihood acne formation. In conclusion, turmeric rhizome extract has the potential to antiaging, wound healing, and anti-acne in cosmetics in the form of cream or lotion.

Keywords: Lotion

I. INTRODUCTION

Turmeric is one of the plants that has been conducted research testing as a treatment of diseases herbally. The general public uses turmeric as a cooking spice. Curcuma longa is a rhizomatous herbaceous perennial plant belongs to the family, Zingiberaceae⁵. It is native to tropical Tamil Nadu, in south east India and needs temperature between 20 °C and 30 °C.

Curcumin has been a centre of attraction for potential treatment of an array of diseases, including cancer, diabetes, allergies, arthritis and other chronic .The most important chemical components of turmeric are a group of compounds called Curcuminoids and Curcumin. Curcumin constituents are 3.14% of powdered turmeric⁷. In addition it also contains volatile oils (5.8%) such as turmerone, zingiberene, sugars, proteins (6.3%), and resins⁶. The turmeric has been used traditionally for thousands of years as a remedy.

The main active ingredient in turmeric is a compound called curcumin, which gives turmeric its characteristic yellow color and also has anti-inflammatory and antioxidant properties.²⁻⁴ The content of turmeric rhizome consists of alkaloid compounds, flavonoids, tannins, curcumin, and essential oils. In other studies, it is stated that turmeric has other properties such as improving appetite, antiseptic, itch relieve on the skin, antibacterial and anti-inflammatory.

Turmeric contains antioxidants that help fight free radical damage and oxidative stress, which are major contributing factors to skin aging. Its astringent properties help control excess oil production on the skin. This is beneficial for those with oily or acne-prone skin. By reducing excess oil, turmeric can help keep the skin fresh and free from excess oil problems. Turmeric's anti-inflammatory properties are also useful in relieving skin irritation, for example, after exposure to sunlight or after certain facial treatments.

Aim:-

primary aim of turmeric lotion is to provide a range of benefits for the skin, including moisturizing, anti-inflammatory action, skin brightening, and antioxidant protection.

It's often used to combat dry skin, reduce irritation and redness, and promote a more even and radiant complexion.



Objective :

The primary objective of turmeric lotion is to improve skin health and appearance.

It aims to brighten the skin, reduce dark spots and hyperpigmentation, and promote a more even skin tone.

Additionally, turmeric lotion often seeks to moisturize, soothe irritation, and provide antioxidant protection.

Material and method

- Rose water.
- Glycerine.
- Turmeric powder.
- Vitamin E
- Butter.
- Coconut oil.
- E Wax.
- Sandalwood oil.

Turmeric Powder :



Turmeric powder, particularly its bioactive compound curcumin, is a key ingredient in many turmeric lotions due to its various skin benefits. Turmeric powder is known for its anti-inflammatory, antioxidant, and antimicrobial properties, which can help with skin brightening, wound healing, and reducing blemishes.

Chemical Constituents :-

Turmeric is the include in the ethanol and found are seven compound are the gallic acid, photo - catechuic acid, epicatechin, rutin, curcumin, myricetin and cinnamic acid.

Benefits:-

Skin Brightening: Turmeric powder can help reduce the appearance of dark spots and hyperpigmentation, contributing to a more even skin tone.

Anti-Inflammatory Effects: Curcumin in turmeric powder helps soothe irritated skin and may reduce redness and inflammation associated with certain skin conditions.

Antimicrobial Properties: Turmeric's antimicrobial properties can help prevent acne breakouts and reduce the risk of skin infections.

Wound Healing: Turmeric powder may accelerate the healing process of wounds and cuts due to its anti-inflammatory and antimicrobial properties.

Moisturizing and Nourishing: Turmeric lotions can help restore moisture to dry skin, making it soft and supple.

Reducing the Appearance of Stretch Marks: Some studies suggest that turmeric may help improve the appearance of stretch marks.



Glycerin :



Glycerin is the a humectant it has ability in your skin to lock in moisture and help retain it for long a it is popular moisturiser. The first step before you apply glycerine are deeper level or your skin. The glycerine are commonly used the occlusive another type or moisturizing agent.

Benefits :

Moisturize deeply

Prevent corn and calluses calm irritation & itching provide cooling sensation the feet.

Glycerine help skin feel & look healthier and more supple.

carbon atom

Chemical constituen :

It consist of a polyol compound that three and hydroxyl group

Vitamin E :



Vitamin E is a Pat - soluble essential nutrient with anti-inflammatory properties. vitamin E help support the Emmune system, cell function and skin health. It is an antioxidant, making effective combating the effect or free radical produce by the metabolism or Food and toxin in the environment.

Benefit :

It help you maintain healthy skin and a robust immune system.

Vitamin E help protect the collagen in your skin from biological processing linked to the aging or your skin as well as the drying effect that aging has on skin. It is an anti-oxidant properties widening blood vessel promoting efficient blood to the extremities

Rose Water:-



Rose water is traditionally made through steam distillation of rose petals, capturing the essence of the rose in the water. A simplified method involves boiling rose petals in water and then straining the liquid.



Benefits :-

Balances Skin's Natural Oils Hydrates & Calms the Skin Reduces Puffy Eyes

Dutiled Balances Natural

Keeps Makeup Intact for a Long Time Makes skin fresh.

Chemical constituents :-

It consist of Phenyl ethyl alcohol, citronellol, geraniol.

Butter:-



Butter, especially natural butters like shea, cocoa, and mango butter, can be a beneficial ingredient in lotions due to its moisturizing and nourishing properties. These butters are rich in essential fatty acids and vitamins that help hydrate the skin, soothe irritation, and protect against environmental damage. They can be used in homemade lotions or as a key ingredient in commercially produced ones.

Benefits :-

Moisturizing: Butter, especially natural butters, are rich in fatty acids that help lock in moisture, making the skin soft and supple.

Skin Soothing: Butters like shea butter have anti-inflammatory properties that can help soothe irritated skin, including sunburns and eczema.

Nourishing: Butters contain vitamins and antioxidants that nourish the skin, promoting healthy cell regeneration and potentially reducing the appearance of wrinkles.

Protection: Butters can help create a protective barrier on the skin, shielding it from environmental stressors like pollution and dryness.

Versatility: Different types of butters have varying benefits, allowing for tailored lotion formulations for specific skin concerns (e.g., cocoa butter for stretch marks).

Chemical constituents :-

It consist of milk fat, water, salt, and milk solids.

Coconut oil :-



Benefits:-

Moisturizing dry skin, including in people with conditions such as eczema. Reducing inflammation, which may result from UVB rays.

Promoting wound healing.

Antibacterial, antifungal, and antiviral properties.

Chemical constituents:-

It consist of Fatty acid and Lauric acid.

Emulsifying wax



Emulsifying wax, often referred to as "E wax", is a crucial ingredient in lotion formulations. It acts as a binder, helping to stabilize the oil and water-based ingredients, preventing them from separating and ensuring a smooth, consistent texture. It's commonly derived from natural sources like vegetable oils.

Benefits :-

Body lotions: Used for moisturizing and hydrating the skin. Hand lotions: Designed to keep hands soft and supple.

Facial moisturizers: Formulated to provide hydration and protection for the face.

Emulsifying wax helps lock in moisture, preventing water loss from the skin.

Nourishment:By facilitating the mixing of oils and water, it allows the skin to receive a comprehensive blend of hydration and lipid-based nourishment.

Improved Texture:Emulsifying wax helps create smooth, creamy, and easily absorbable products.

Stability:It prevents the separation of oil and water phases, ensuring the product remains uniform and consistent.

Chemical constituents:-

It consists of Cetearyl Alcohol, Polysorbate 60

Sandalwood oil :-



Combination of turmeric and sandalwood can be beneficial for skin.

Sandalwood oil is often added to lotions for its calming and nourishing properties,

Chemical constituents:-

Sandalwood oil primarily consists of sesquiterpenes and sesquiterpene alcohols, with α -santalol and β -santalol being the dominant compounds.

Benefits:-

Sandalwood oil in lotion provides multiple skin benefits, including moisturizing, soothing, and antibacterial properties.

It can help hydrate dry and sensitive skin, reduce inflammation and irritation, and protect against bacteria.



Additionally, sandalwood oil can help brighten and even out skin tone, potentially reducing hyperpigmentation.

Ingredients Table:-

Sr. no.	Ingredients.	Quantity
1.	Rose Water.	150ml
2.	Glycerine.	2ml
3.	Coconut oil.	10ml
4.	Turmeric Powder.	2gm
5.	Butter.	10gm
6.	Emulsifying wax.	20gm
7.	Vitamin E.	2ml
8.	Sandalwood oil	1ml

Method :-

We are using 150 ml of rose water
↓
Net you need 10ml of Glycerin This will moisturize cool and smooth the skin
↓
Start by adding the glycerine into the rose water keep it a side
↓
moving on to the oil phase 10 ml of coconut oil and then add turmeric powder in oil phase
↓
Take 10 grams of butter it gives Softens & moisturizes the skin
↓
Add butter into the oil
↓
The next ingredient is 20 grams of emulsifying wax
↓
This will help outwater phase and oil phase combine Without this your lotion will separe
↓
Add E-wax into the oil & butter. This will be the oil phase
↓
mix to combine all ingredients
↓
Now its time to double boil them of both Solution
↓
Place both in pan of boiling water
↓
The oil phase will dissolve gradually .
↓



Everything is now completely dissolved
↓
It's now time to combine
↓
Pour the dissolved oil phase into a mixing bowl
↓
Immediately pour the water phase into it
↓
Put your immersion blender into the mixture and blend
↓
This will combine the water and oil together to avoid separation
↓
After blending for a while, mix with your spoon too
↓
As it cools, it will begin to thicken up
↓
The lotion has started to thicken
↓
Allow the lotion to cool completely
↓
Once it cools, we will add the cool down ingredients
↓
First add 1 ml of vit E, 2 ml preservatives and 1 ml sandal wood oil
↓
Mix to combine all together

II. CONCLUSION

In conclusion, turmeric lotion offers a natural approach to skincare, potentially promoting skin health and radiance through its anti-inflammatory, antioxidant, and moisturizing properties. It can help address concerns like redness, inflammation, and dryness, and may even contribute to a more even skin tone and a youthful appearance.

ACKNOWLEDGEMENT

We would like to express our gratitude to Faculty of Pharmacy, Faculty of Pharmacy, Dr Babasaheb Ambedkar Technological University Lonere, Maharashtra, for offering the opportunity to conduct project work on a Turmeric lotion. We also want to express our gratitude to the faculty members who helped us along the way.

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