

PREPARATION AND EVALUATION OF HAND WARMING CREAM**Ms. Ravina Suraj Kawade*¹, Ms. Kalyani Chande², Ms. Chatana Pawar³**¹Assistant Professor, Amrutvahini Institute of Pharmacy, Sangamner.²Assistant Professor, Dr. D. Y. Patil College of Pharmacy, Akurdi, Pune, Dr. D.Y. Patil Educational Complex, Sector No. 29, Pradhikaran, Akurdi, Pune, Maharashtra, India 411044.³Students, Dr. D. Y. Patil College of Pharmacy, Akurdi, Pune, Dr. D.Y. Patil Educational Complex, Sector No. 29, Pradhikaran, Akurdi, Pune, Maharashtra, India 411044.

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Corresponding Author*Ms. Ravina Suraj Kawade**Assistant Professor, Amrutvahini
Institute of Pharmacy, Sangamner.

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ABSTRACT

Herbal Cosmetics are defined as the beauty products which possess desirable physiological activities such as healing, smoothing appearances, enhancing and conditioning properties because of herbal ingredients. They are formulated using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide cosmetic benefits. The science of ayurveda has utilized many herbs and floras to make cosmetics for beautification and protection from external affects. The natural content in the botanicals does not cause any side effects instead enrich the body with nutrients and other useful minerals.^[1] The cosmetics, according to the Drugs and Cosmetics Act is defined as articles intended to be rubbed, poured, sprinkled or sprayed on,

introduced into or otherwise applied to the human body or any part for cleansing, beautifying, promoting attractiveness or altering the appearance. There is common belief that chemical based cosmetics are harmful to the skin and an increased awareness among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations. The Drug and Cosmetics Act specify that herbs and essential oils used in cosmetics must not claim to penetrate beyond the surface layers of the skin nor should have any therapeutic effects.^[2]

KEYWORDS: Thermogenic, Cosmeceuticals, spreadability.

I. INTRODUCTION

The word “Cosmetic” derived from a Greek word “cosmetics” that means to adorn. From that time any materials used to beautification or promoting appearance is known as cosmetic.

The phrase “topical products” encompasses all of the products that are intended for application on the skin, mucous membranes and cavities.^[3]

Topical products are generally available in various forms such as liquids, ointments, gels, creams and foams. In terms of complexity, the product can be a simple homogeneous viscous solution or semisolid solution, or a suspension of active pharmaceutical ingredients (API) in the semisolid vehicle. The microstructure of the product becomes increasingly complex with the increasing heterogeneity of the product. For example, creams are heterogeneous and are consider complex product.^[4]

Cosmeceuticals are used to improve and nourish the skin appearance and known to treat different dermatologic conditions. Like cosmetics, cosmeceuticals are also applied topically having ingredients that influence the skin’s biological function. Cosmeceuticals are meant to improve appearance by delivering nutrients necessary for healthy skin. Cosmeceuticals usually claim to reduce wrinkles and to improve tone, texture and radiance of the skin. Cosmeceuticals products of herbal origin are most liked among clients as they are mostly nontoxic and holding strong antioxidant activity.^[5]

Cosmeceutical product can be a drug, a cosmetic, or a combination of both. But the term “cosmeceuticals” has no meaning under the law”. Cosmeceuticals are not subject to be reviewed by the Food and Drug Administration (FDA) and the term cosmeceuticals is not recognized by the Federal Food Drug and Cosmetic Act. Although cosmetics and cosmeceuticals both are being tested for their safety and tested to determine whether beneficial ingredients actually live up to a manufacturer’s claims is not compulsory. The “cosmeceuticals” label Hu only to products.^[6]

Ingredient of formulation

I] Bees wax

- It acts as an humectant and emollient sealing the human skin thus hydrating and softening the dry cells.
- It is rich in vitamin A.

- Also used as anti-inflammatory agent and antiseptic.
- Ability to Protect from Irritants-Beeswax can also act as a layer of protection when applied to the skin. It can protect Skin from environmental irritants and extreme weather. Promotion of Hair Growth-Beeswax not only moisturizes and Soothes hair, but it can keep moisture from getting out of the hair. Beeswax can create a protective layer on the skin.^[7]

LI]] Cetyl alcohol- It has ability to thicken and stabilize the preparation

-Help to smooth texture retain moisture and prevent them from separating. Creamy feel product and enhance spreadability.^[8]

III] Borax

- It also known as Sodium tetraborate.
- It is used as preservative, buffering agent, antiseptic and fungicide.
- Borax also used in cosmetic industry to prevent or slow down bacteria growth in moisturizing product like cream, gel, antiseptic.^[9]

IV] Stearic acid

- It has moisturising properties.
- It is used as an emollient that soften smooth and lubricates the skin also balance skin PH and Hydrate skin.
- Slows down skin aging:- Stearic acid contributes to warding off the signs of aging, thus helping you get youthful skin.
- Reduces Inflammation:- The anti-inflammatory properties of this unicorn in skincare help soothe irritation and itchiness while reducing redness.
- Optimizes Skin Barrier:- Helping retain moisture in the skin strengthens the protective barrier against harsh environmental stressors.
- Acts as a Mild Cleanser: - As a cleanser with pH 5.5, it helps you get rid of dirt, grime, and sebum without stripping the skin's essential oils.
- Acts as an Emulsifier: - Stearic acid also functions as an emulsifier, meaning it blends oil and water-based ingredients in skin care formulations.^[10]

V] Propylene glycol

- It is used as humectant and emollient.
- It is used as Viscosity control and also as preservatives.

VI]Til oil

- It is used as natural antioxidant which neutralizes the harmful oxidizing effect of UV sunrays and free radical.
- Natural antimicrobial and anti-inflammatory property.^[11]



VII] Tea tree oil



Terpinen-4-ol is a major component of tea tree oil which exhibits strong antimicrobial and anti-inflammatory properties. VIII] Almond Oil- Rich in vitamin A, E

- Antiaging, prevent irritation, redness
- Improve complexion

IX] Ginger- Ginger is often used in warming cream due to its natural ability to improve circulation and provide warming sensation when applied topically.

-It can help soothe sore muscles and joints, making it a popular Ingredient in muscle rubs and creams designed for pain relief and relaxation.^[12]

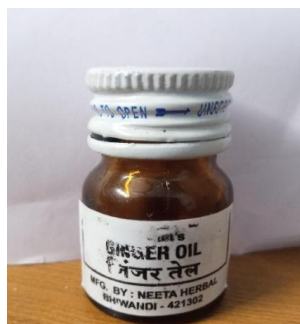


Table No. 1: Formulation of Cream.

Sr no	Oil phase	Quantity
1	Bees wax	3.2g
2	Cetyl alcohol	2g
3	Liquid Stearic acid	2g
4	paraffin	10 ml
5	Til oil	0.2 ml
6	Tea tree oil	0.1
7	Almond oil	1ml
8	Ginger oil	1 ml
	Water phase	
9	Borax	0.16
10	Propyl paraben	0.02

METHOD OF PREPARATION

- In beaker, Beeswax Emulsifying was Cetyl alcohol, Stearic acid + Til oil+ almond oil, Tea tree oil Ginger oil Propyl paraben were added. It was placed on magnetic stirrer and heat was applied.
 - In another beaker, Water + Borax Methyl paraben were added. It was place on magnetic stirrer and heat was applied
 - In Oil phase, water phase was add at the same temperature (70°C)
- Propylene glycol added and stirred well. A homogenous yellow cream was formed.^[13]

LIST OF EQUIPMENTS USED

SR.NO	EQUIPMENTS	MODEL	MAKE
1	PH meter	LT-11	Laptronicas
2	Texture analyzers	DV-11+pro	Brookfield viscometr
3	Stability chamber	CHM-65	Remi instrument Ltd
4	Magnetic stirrer	ELE-223ML	Remi instrument Ltd
5	Electronic balance	AY-120	Shimadzu

EVALUATION PARAMETER OF CREAMS

1. Physical appearance: The physical appearance of the cream can be distinguished by its colour, Roughness an Texture.
 - a) Colour: The colour of the cream was observed by visual examination. The colour of cream is white.
 - b) Odour: The cream had characteristic Ginger odour.
 - c) State: The state of cream was examined visually. The cream was semisolid in state.
 - d) Consistency: The formulation was examined by rubbing cream on hand manually. The cream having smooth consistency.^[14]

2. Determination of pH: The pH of the cream can be measured with a digital pH of room temperature. By taking a sufficient amount of moulded solution with the right solvent in the appropriate beaker.^[15]
3. Viscosity: Viscosity of the cream was determined with the help of Brookfield viscometer at 100 rpm with the spindle no.4
5. Spreadability test:- Sufficient amount of sample is taken between two glass slides and a weight of 100gm is applied to the slides for 5 minutes. The spread can be expressed by,

$$S = m * l / t$$

Where, m = weight applied to the upper slide.

L = length is delivered to the glass slide. T = time taken

6. Irritancy test: Mark an area (1sq.cm) on the left hand dorsal surface. The cream was applied to the specified area and time was noted. Irritancy, erythema, edema, was checked if any for regular intervals up to 24 hrs. and reported.^[16]
7. Homogeneity: The homogeneity of the formulated cream was judged by the visual appearance and touch. The appearance and touch of the cream were good.^[17]
8. Removal: Ease of removal of used creams was checked by washing the used part with tap water.
9. Dye test: The scarlet red dye is mixed with the cream. Place a drop of the cream on a microscopic slide. Cover it with a cover slip, and examine it under a microscope. Globules appear colorless in the red ground i.e. w/o type cream.^[18]

RESULT

Various types of evaluation done on cream in that morphological character of cream can be evaluated. So that formulation is white. The produced formulation 'pleasant' well accepted flavour makes them ideal for cosmetic formulation, smoothness and texture was suitable for cosmetic formulation requirements and stability can be evaluated so that the result is no changes in colour, smell, texture or smoothness was noticed under stability parameters stated. The result of irritancy test, during irritancy trials, the formulation displayed absence of irritations, redness, edema, this is safe for skin usage, spreadability of cream was good.^[19]

Table No. 3: Data of morphological evaluation.

Morphological parameter	Result
colour	White
Odour	Pleasant
Texture	Fine

Table No. 4: Stability testing.

STABILITY PARAMETER	Result
color	No change
Odour	No change
Ph	No change

Table No: Result of irritancy test.

Irritancy test	Result
Irritation	NO
Edema	NO
Redness	NO
Swelling	NO

CONCLUSION

The prepared formulation cream demonstrated good consistency and spreadability, homogeneity, pH, non greasiness, and there was no phase separation during research periods. Accordingly to mentioned data. The purpose of these cream is to give the warming effect on apply to the skin. So these cream used in winter season which will be helpful for preventing cold. ginger it provide the warming effect. This cream can be easily spread on the skin. They don't cause any type of irritancy to the skin. This cream contains the ginger oil, til oil, tea tree oil which are play important role in the formulation of cream. cream is plays important role in daily life.^[20] Your skin is a protective barrier, sensory organ, temperature regulator, and so much more. Adding a good body cream to your skincare routine can be one of the best things you can do to keep your skin healthy. Cream having various benefits of using a high-quality body cream. A good body cream helps your skin retain moisture and stay hydrated. Well-hydrated skin glows from within, making you look naturally beautiful. Regular use of a body cream is an easy way to keep your skin looking radiant and young. Various types of creams are available like sun creams, winter creams and some cream gives the warming effect it will be helpful for preventing cold in winter. Moistening body cream can help to sooth skin and smooth appearance of the skin. The skin received the additional conservation from water phase.^[21,22]

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