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POLYHERBAL ANTI-TAN MASK

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Abstract

Nowadays, tanning has become a significant skincare issue because of pollution, stress, UV radiation, and lifestyle choices. The goal of the current effort is to synthesise a herbal anti-tan medication and evaluate its many properties for both stability and effectiveness. Using only natural ingredients, the herbal concoction was made on-site in accordance with the suggested composition. The following ingredients—sandalwood, turmeric, orange peel, coffee, and maize starch—were bought at the neighborhood market, dried, ground, and then combined geometrically before being placed in an airtight container for future analysis. The results of numerous tests validated the formulation's quality criteria. The criteria were determined to be sufficient for standardising the formulation of herbal medicines. In this paper, a poly-herbal anti-tan formulation was synthesised and assessed on a number of factors. The produced herbal pack was determined to be suitable by all requirements and may be used as a superior treatment option for tanning. The word "tanning" comes from the colour tan and has a cultural background.

Keywords: Polyherbal, Turmeric, Mask, Evaluation, Tan

Introduction

The skin's self-healing defense against UV damage is a tan. To the skin protect from burning, Ultraviolet rays cause the development of pheomelanin, a reddish-brown pigment, when they enter the skin. The consequence is a tan, which makes the skin darker. Whenever melanocytes, a particular type of cell, are impacted by UVA rays in the stratum basale, they begin to produce melanin. Melanin is the name of the dark molecule that tans skin. The process through which skin tone gets darkened or browned in the sun.

The process of darkening or tanning skin is known as "sunbathing," "sunbathing," or simply tanning. The major cause of it is being exposed to ultraviolet (UV) radiation, which can come from both natural sources like sunlight and from synthetic ones like tanning lights found in indoor tanning beds. Sunbathing is a type of passive leisure in which people intentionally tan their skin through exposure to the sun. Sunless tanning is the practise of certain individuals who use chemical items to get a tanned effect without being exposed to UV rays.

Impact on the health of the skin

A moderate amount of direct sunlight aids in the body's creation of colour and vitamin D, but too much exposure to the sun's ultraviolet rays can lead to sunburn, a higher probability of skin cancer, weakened immune system function, and faster skin ageing. More readily than others, certain individuals develop a tan or become sunburned. This could be caused by various skin tones and skin kinds, which may be inherited traits.

Redness of the skin is the initial sign of sun damage, followed by tan development. Vitamin D and Melanin are produced by the body as a result of moderate sun exposure. Skin cells are shielded from UV B radiation damage by melanin. After UV light damages DNA, p53 is activated, which causes the host gene to be transcribed, including proopiomelanocortin (POMC), which increases the melanocyte-stimulating hormone was release that instructs melanocytes to increase melanin pigment and transfer keratinocytes to melanin, both of which contribute to the tanning response. Sunscreens with a lower Sun Protection Factor (UV-B chemical) are used in the form of oils, lotions, creams, or gels.

Sunless tanning is the practise of certain people who utilise chemical items to produce a tanning effect without being exposed to UV rays [2]. Over the past century, there has been a sharp increase in the incidence of skin cancer, which is mostly linked to more UV radiation exposure from the sun. Many people continue to tan despite public education campaigns to avoid skin cancer, claiming factors such the link between tanning and physical and mental health, an active lifestyle, and physical attractiveness. The skin will often start to organically exfoliate and renew within 7 to 10 days, depending on the individual. Exfoliation aids in removing dead skin cells with pigment from the top layer of skin. Tan removal solutions aid in removing tan [3]. Herbs are frequently utilised as remedies because they are non-toxic, inexpensive, and readily available. Herbs have been used for cleansing, beautifying, and other reasons since the beginning of time [4] [5]. In actuality, these products include a variety of substances. On skin that has already browned or has been overexposed to the sun, some chemicals or substances might trigger allergies. Using natural products to erase tan is one of the greatest alternatives [6].distinct skin tones have distinct tanning habits.

The way a person reacts after being exposed to the sun depends on the colour of their natural skin. A person's natural skin tone can range from a darkish brown to a pigmentation that is practically colourless and may seem white. The Fitzpatrick scale, created in 1975 by Dartmouth dermatologists Thomas B. Fitzpatrick, describes the typical tanning behaviour of different skin types as follows:

Class	As Known	Sunburnt	Flicking behaviour	Luschan scale
I.	Illumination	Usually	Sometime	7-10
II.	Pale	Often	Occasionally	1-6
III.	Dark intermediate	Rarely	Often	18–22
IV.	Light intermediate	Rarely	Usually	10-14
V.	black	No	Naturally black-brown skin	27-33
VI.	Brown	No	Sometime darken	25-28

Table 1:- The typical tanning behaviour of different skin types

These organic ingredients have a great deal of success in removing skin tans. Additionally, by providing minerals and antioxidants, they won't have any negative side effects and will improve skin health. While keeping the skin moisturised and supple, it aids in sloughing off dead cells to diminish the tan. Herbal skin care products give the skin cellular protection and a young shine [7]. The creation of a herbal skin treatment that prevents tanning and the establishment of its quality requirements are the main topics of the current study. Calcium, iron, calcite, silica, quartz, calcium, etc. It gives skin radiance. It has been shown to work well for skin that is easily irritated. The skin is calmed by its calming effect. The calming effect calms the skin. Without using chemicals, it has the power to decolorize liquids or oil. It might be stated that Multani Mitti aids in removing oil or sebum from the skin or hair because of its great adsorbing properties [8]. It is a kind of adsorbent clay mostly made of calcium montmorillonite. The relative proportions of the three elements Al, Fe, and Mg are not set in montmorillonite, an aluminium silicate with the general formula (Al, Fe, Mg)4Si8O20(0H)4. It should be recognised from bentonite, sometimes known as sodium montmorillonite [9]. As they contain essential nutrients, it aids in skin care in a variety of ways, including lowering pore diameters, eliminating whiteheads and blackheads, healing sunburnts, washing skin, enhancing circulatory of blood, boosting complexion, and minimising blemishes and acne [10].

The following are necessary for basic skin care:

a) A cleansing agent that dead skin cells, dust and clears the dirt, from the skin's pores. Vegetable oils including sesame, palm oil, coconut, and dome of the top cleaners.
b) Use of Tone: Toner aid to the shield and tighten skin it from various environmental condition and many of the chemical are drafting in the air. Among the spices used as toners include witch golden in colour geranium, sage, citrus fruit, ivy burdock, and essential oils.
c) Moisturising: Moisturising aids in the development of smooth, supple skin. Moisturising results in an even complexion and makes you less likely to age, sorbitol, Vegetable glycerin, rose water, aloe vera, iris and jojoba oil, are a least of the herbal moisturisers.

Ideal Mask Qualities and Characteristics:

1. It ought to create a tight coating that is simple to wash away.
2. It should result in a clear feeling of tension, tingling, or heat that is therapeutic.
3. The feeling of the skin should change noticeably as a result.
4. It should result in a notable and considerable cleansing to the skin.
5. Should be dermatologically non-toxic, safe, and carefully stored.

Method and materials

On the strength of the previously published research review, several of the natural substances were chosen. They were consumed in the recommended dosages, which are listed in Table 1. Accurate weight measurements were acquired of each component in its pure condition. With the use of a mortar and pestle, all the components were uniformly blended.

Ingredients in the Anti-Tan Skin Pack:

Sr no.	Name	Biological Name	Quantity
1	Coffee	*Coffea Arabica*	8gm
2	Sandalwood	*Santalum album*	5gm
3	Turmeric	*Curcum longae*	11gm
4	Corn starch	*Zea Mays L*	2gm
5	Orange peel	*Citrus sinensis*	25gm

Table 2: Components of the anti-tan skin pack were carefully measured and collected in their purest form.

Preparation method :-

In a mortar and pestle, cornflour was taken as the base, and then sandalwood was added and properly mixed by trituration (the process of reducing the drug to a moderately fine powder and mixing it together). After proper mixing of corn starch and sandalwood, the orange peel was added. All the raw materials used for making the anti-tan mask were taken, including coffee, cornstarch, turmeric, orange peel, and sandalwood. Their powder forms were prepared and weighed according to the formulation.

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Fig.No. 1

Role of Ingredients

1. **Sandalwood**

Fig no2: Sandalwood

The powdered sandalwood seen in Fig. 1 has long been used to treat skin issues. It eliminates suntan and relieves sunburn when used often on the skin. Sandalwood contains terpenoids that can be used to cure sunburn. The major component of sandalwood oil is santalol, which has a wide range of medicinal uses. The major components of sandalwood oil are santalol, and santenone. Additionally, it has a cooling action that helps to smoothen the skin and lighten sun spots. Given that just 1.12% of people who are fragrance-sensitive in this subgroup respond to 5% santalol, the substance may not provide a significant risk of skin sensitization in Caucasians. [11] Santalum wood, sometimes known as sandalwood, offers anti-aging and anti-tanning qualities. In addition, it is useful of the skin in the variety of the ways like, through its toning effect, antibacterial, cooling, emollient, soothing, astringent, and healing characteristics. [12]

History and Cultural Significance

Indian sandalwood was a popular plant in the private medicinal stores maintained by Arab apothecaries in eighth-century Baghdad.4 The bartering of apothecaries with travelling merchants for the valuable sandalwood is shown in Arabic texts and art.4 East Indian sandalwood oil was ingested

in traditional Chinese medicine to relieve nausea and vomiting.2 In Europe, the oil was further used to treat aches, fevers, and to strengthen the heart.2

2. **Turmeric**

Fig No. 3: Turmeric

From blemishes and soothes skin problems like eczema, turmeric contains anti-inflammatory and anti-bacterial properties, as illustrated in Fig. 2. Being a natural antibacterial, it works wonders for blemishes brought on by tanning. Curcumin is a bioactive ingredient with antioxidant and anti-inflammatory properties, is principally responsible for turmeric's health benefits. Diarylheptanoid, often known as curcumin, is a tautomer molecule that may exist in enolic form of organic solvent like water. Its IUPAC designation is (1E,6E)-1,7-Bis (4-hydroxy-3-methoxyphenyl) hepta-1,6-diene-3,5-dione. It has been suggested that this polyphenol possesses pleiotropic properties because of its capacity to affect a variety of signalling molecules. Since it was first discovered to have antibacterial properties in 1949, curcumin has also been found to have anti-inflammatory, antioxidant, pro-apoptotic, chemo preventive, wound healing, anti-proliferative, and chemotherapeutic properties [13–15]. In comparison to vitamin E, the turmeric longa rhizomes are more effective in removing free radicals and inhibiting lipid peroxidation. They are also considered to be an anti-inflammatory and topical antioxidant. According to reports, it works well to lighten skin and has a variety of beneficial topical effects without causing irritation or sensitization.[16]

3. **Orange peel powder**

Fig No. 4: Orange peel powder

Orange peels are an excellent source of vitamin C, calcium, and dietary fibres, as illustrated in Fig. (3). As a natural bleach, orange peels may lighten skin and make it fairer. The sun is the main source of tanning, which results in dark patches and tan layers on the skin. Additionally, orange peel powder lessens skin imperfections. Previous research has demonstrated that the citrus sinensis cultivars Moro, Tarocco, and Sanguinello's red orange extracts have potent antioxidant and free radical-scavenging properties in vitro, as well as photo protective properties. Skin pigment is a protective reaction to the Oxygen Reactive Species generation brought on by UV exposure. The antioxidant defences that protect skin against the production of ROS are there by nature; however, they are not totally effective when exposed to sunshine, and this restriction gradually gets worse with age. Citrus fruits like oranges include a variety of nutrients, including calcium, potassium, magnesium, and vitamin C. It shields the skin from oxidative stress, moisture loss, and free radical damage. Additionally, it fights wrinkles, age spots, acne, and blemishes and has quick glow characteristics. [17,18]

Biological source: citrus aurantium dulcis

Family:*Rataceae*

Chemical Constituents: limonene, decanal, citral,3-carene

4. **Coffee**

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Fig No.5: Coffee

Cellulite on the skin may look less visible thanks to coffee. By widening blood vessels under the skin and enhancing general blood flow, caffeine, which is a component of coffee, is believed to be the secret to reducing cellulite. As a result, cellulite may appear less prominently. Because exfoliating may help smooth your skin and give it an even look, it is claimed that this skincare technique works best when used with a coffee scrub. effets d'apaisement Despite the fact that coffee is known for its energising benefits on the inside, using it topically can have the opposite impact. Coffee's antioxidants are to thank for this. advantages of anti-aging Sunspots, redness, and fine wrinkles may look less prominent on your skin if you apply coffee straight to it. In fact, according to one research Trusted Source, there is a clear link between consuming coffee and a reduction in the effects of photoaging. reduced inflammation Chlorogenic acid (CGA) and melanoidins in coffee have been linked to anti-inflammatory properties. The reduction of hyperpigmentation, which may be related to inflammation, is also associated with CGA. Acne management Regular coffee consumption may assist fight issues caused by dangerous germs in the case of a wound or recurring skin infections. Coffee contains CGAs, which are antibacterial and anti-inflammatory. All these advantages can work together to combat acne, along with the natural exfoliation that coffee grounds provide. Coffee may be utilised for post-sun care and has the same anti-aging properties. Making a soothing treatment that your burnt skin will like is the key in this situation rather than using a mask or scrub as you would for other skin conditions.

5. **Cornstarch**

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Fig No. 6: Cornstarch

A typical component is cornflour, which is produced from the endosperm, the starchy part of the corn kernel. For soups, casseroles, gravies, marinades, sauces, etc., it serves as a thickening agent. Despite the common misconception that cornflour is only used in cooking, it has a variety of other uses. Due to its ability to absorb excess skin oil, which is what causes acne and pimples, corn starch is helpful for skin that is prone to breakouts. In order to avoid breakouts, cornflour is applied to the skin to assist eliminate impurities from the pores, such as dirt, dust, oil, filth, and so on. Use of cornflour results in immediate body and facial whitening and lightening. It has iron and calcium as well as vitamin A, which lighten skin tone and aid in removing dark spots and pigmentation. Additionally, it enhances skin health in general and cell regeneration.

6. Rose water

The most common use of in religious ceremonies of a rose water; which are help in mosques, particularly at mourning ceremonies, to relax and calm people. The greatest quality of rose water where the god house is washed annually with special and distilled perfume of rose water. Rose water have greater value in food industry, and special prepared food using this product.8).

Terpenes, glycosides, flavonoids, and anthocyanins were among the substances recovered from R. damascenes, hips (seed-pot) and flowers, petals. Mycenae, Kaempferol, vitamin C, Carboxylic acid, and quercetin are all present in this plant. A tanning material of a bitter principle, organic acids and fatty oil, are also found in flowers. More than 97 micro- and macro-components were discovered in the essential oil of R. damascene from the Kashan areas. More than 97% of the total oil was contained in 17 of these compounds. kaempferol and Nerol were the main ingredients of the oil, while -citronellol (14.5-47.5%), nonadecane (10.5-40.5%), and geraniol (6.8-16%) were the discovered chemicals. Phenyl ethyl alcohol (74.38%), citrenellol (10%), nonadecane (4.46%), geraniol (4.04%), ethanol (0.00-12.24%), and heneicosane were the main components, according to analyses of rose absolute. Phenyl ethyl alcohol (70.55–72.88%), citrenellol (11-12.26%), nerol (3.2-

3.56%), and geranial (5.24–5.85%) were the main components of rose in another investigation. In addition, it was discovered that hydrosol had four different ingredients, of which geraniol (31.24%), citrenellol (26.54%), phenyl ethyl alcohol (20.24%), and nerol (11.65%) were the predominant ones.

Sr.no	**Plant**	**Botanical sources**	**Chemical constituents**	**Uses**
01	Turmeric	curcumaromatica Family: *zingiberaceae*	curcumin, curcuminoid, germacrone, bisdemethoxycurumin	• Antitanproperty • anti- inflammatory • antioxidant • skin lightening agent
02	Sandalwood	Santalum album Family: *santalaceae*	beta-Santalol and alpha-santalol, and santenone	• removes suntan • smoothen the skin • anti-aging properties • astringent properties • antibacterial properties
03	Coffee	Coffea arabica Family: *Rubiaceae*	caffeine,quinicacid,trigonelline,chlorogenic acid	• anti-aging • Anti- inflammatory • Acne treatment • Photoageing
04	Orange peel powder	citrus aurantium dulcis Family:*Rataceae*	limonene, decanal, citral,3-carene	• reduces blemishes • antioxidant prevents acne, blemishes, wrinkles • antiageing.
05	Rose water	Seoals and petals of Rosa damascene family:*ro saceae*	beta-citronellol , nonadecane , geraniol, and Kaempferol, nerol and phenyl ethylalcohol , citrenellol , nonadecane and geraniol ethanol , and heneicosane geraniol citrenello,phenyl ethylalcohol , and nerol	• Can improve your complexation and reduce skin redness • reduce acne • reduce skin puffiness
06	Cornstarch	zea mays Family: *Poaceae*	amylose, amylopectin	• beneficial for acne-prone skin • remove impurities from the pores such as dirt, dust, oil.

Tabel No. 3:- Ingredient Sources, chemical constituent,& Uses.

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Application of this Pack Requires Certain Precautions

In order to avoid the innovation of wrinkle, skin sagging, and expansion of open pores, the pack should not be placed on the face for longer than 22 to 24 minutes. To guarantee its stability and viability over the long term, the created formulation was evaluated for confirming several quality characteristics.

Evalution of the Face Pack

Drug evaluation establishes a drug's identification and establishes the substance's quality and purity. The biochemical variations in the medication, the effects of handling and storing the drug, and adulterations and replacements are the major causes for the requirement for examination of crude pharmaceuticals.

1. Microscopical Evaluation
2. Organoleptic Evaluation
3. Biological Evaluation
4. Chemical Evaluation
5. Physical Evaluation

Organoleptic evaluation-

Describes how the herbal mask is assessed based on its colour, scent, look, consistency, etc.The assessment of medications through the sense organs is known as organolepticity. It pertains to analytical techniques including colour, smell, taste, size, form, and unique traits like touch and texture. It stands to reason that the plant or extract tends to recognise itself upon first sight since it is so distinct. If this isn't enough, the plant or extract can have a distinctive flavour or aroma. Morphology is the description of the shape, whereas morphology is the study of the form of a crude medication.

For instance, the broken surfaces of quassia wood and the bark of cinchona, quillaia, and cascara are significant traits. Umbelliferous fruit aroma and liquorice's sweet flavour.Rauwolfia's wavy form, the spicy flavour of ginger and capsicum, the brown hue of cinnamon, and the aroma and flavour of spice-drugs such asafoetida, black pepper, and nutmeg.

category	sensory feature	Investigation
1.	odour	pleasant
2.	Texture	Fine
3.	Color	Lemon-yellow
4.	Smell	pounce

Table No. 4 Oragnoleptic Character

Physical-chemical evaluation

The physical-chemical parameters, such as the ash value, extraction value, pH, and moisture content, were determined.

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Ash value-

Ash measurement is beneficial for spotting inferior goods, used-up medications, and an abundance of sand or earthy material. Different forms of ash values, such as total ash, acid-insoluble ash, water-soluble ash, and sulphated ash, are utilised in the detection of crude medicines.

Total ash is helpful in identifying crude pharmaceuticals that are combined with diverse inorganic materials, like nutmeg and ginger, to improve their look. These materials may include sand, dirt, calcium oxalate, chalk powder, or other medications. Ash that is insoluble in diluted hydrochloric acid is referred to as acid insoluble ash.

The amount of calcium oxalate in crude medications varies a great deal and is present in the majority of them. Like rhubarb, which has a total ash content of 8–40%. The complete ash in this situation is ineffective for identifying earthy debris that is attached to such a medication. So for rhubarb, acid insoluble charcoal would be preferred. When the ash goes through treatment with a solution of hydrochloric acid, the oxalate that is produced by the incineration will generate calcium oxide or bicarbonate that is soluble in the acid; the remainder of the ashes is weighed and is referred to as the acid-insoluble ash. This allows us to identify the presence of too much earthy material, which is typical of roots and rhizomes. Ash that dissolves in water is used to find materials that have been depleted by water. Sulfated ash is created by adding sulfuric acid to get sulphur salts, when the percentage of ash is estimated using the air-dried medication as a reference.

Sr no.	Physio-Chemical Test	Investigate
1.	Ash Value	4.1%
2.	Loss of Drying	1.4%
3.	pH	7.2

Table No. 5.investigation of Chemical and Physical characteristics

Skin irritability test

According to the regulatory hazard categorization and labelling framework, irritation is the development of reversible skin injury after a specific chemical exposure.

Mark a 1-square-centimeter area on the left dorsal surface. Masks in predetermined amounts were applied at the designated area, and the application time was recorded. Erythematosus, edoema, and irritability have all been observed and reported at regular intervals lasting up to 24 hours.

Category	Parameter	investigation
I.	Irritation	No
II.	Redness	No
III.	Swelling	No

Table No.6: Irritability of the investigation and pack.

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Stability studies:

Few month of storage at various pressure was used to assess the developed formulation's stability. The prepared packed glass ampoules were survey for physical feature such colour, odour, consistency, pH, and feeling while being stored at various temperatures, including ambient temperature and 40 ° C. [19,20,21,22]To ensure the product's identity, strength, purity, and quality, stability evaluation is a crucial step in the creation of pharmaceuticals. The need to conduct these research in a way that is acceptable to regulatory organizations in a global setting is equally crucial.

A stable product requires stable evaluation from the beginning of ingredient selection during preclinical testing to the final register stability batches on the item being manufactured for the market. Product quality is a crucial criterion for an effective and safe product. Significant obstacles for the development organisation include the stability properties of the drug's active pharmaceutical ingredient (API), the formed product during phases I through IV of clinical trials, container selection for the marketed product, and preservation statement rationale for all temperature zones. In order to produce the drug in the most stable state and to effectively gather a dossier that is compliant with the requirements to feed registration of the drug, this chapter discusses all aspects about stability assessment during the development process of the product.

The API, medicinal formulation(s), and the impact of emulsifier and package on stability are all covered in this chapter. The guarantee that the programme is elegantly constructed, consistently, and properly implemented, and upholding today's regulatory standards depends on an intensive review of the operational elements of its reliability studies through all phases of development.

Sr no.	Parameter	Observation
1	Development in Odour	No
2	Development in pH	No
3	Development in Colour	No
4	Development in makeup	No
5	Development in precision	No

Table No. 7: Stability Test and investigation

Rheological Evaluation

The study of how matter flows is known as rheology. As shown in Table 5, measurements of several parameters, including as tapped density, bulk density, angle of repose, Carr's index, etc., are frequently used to identify the powder flow characteristics. All of these methods enable the determination of indices that describe the flowability of powder [23–27].

Angle of repose:

The angle of repose, often known as the essential point of repose, is the sharp drop or dip from a level floor to which material may be piled without collapsing[1]. At this angle, the material on the face of the descending slope is almost ready to slide. Angles of repose may range from 0° to 90°. The angle of repose is influenced by the morphology of the substance; seamless, rounded particles of

sand cannot be stacked as steeply as may be done with rough, interlocking sands. Solvent additives may also have an impact on the angle of repose. If a small quantity of water can fill the gaps between the particles, the electrostatic pull of water to the mineral's surface would increase the angle of repose and related values, such as soil strength. When a horizontal surface is covered with a lot of granular materials, conical piles will form. The angle of repose, also known as the internal angle between the surface of the pile and the horizontal surface, is influenced by the material's density, surface area, shapes, and coefficient of friction. In comparison to material with a high angle of repose, low angle of repose material generates flatter piles.

Hausner's Ratio& Carr's Index:

By compressibility of the powder is usually determined using the Carr index in pharmaceutics. The tapped density & tapped density in a flowing freely powder would be near in value, resulting in a low Carr index. On the other hand, the discrepancy between the measured tapped and bulk densities would be greater in a poorly flow powder where there are more antiparticle interactions, resulting in a bigger Carr index. A Carr index upside 24 is seen as a sign of the low ability to flow, and one downward 18 as a sign of greater flowability.

Though their correlations to flowability have been demonstrated empirically, the Hausner ratio and the Carr index are occasionally criticized for lacking a solid theoretical foundation. However, because the tools needed to do the analysis are affordable and the method is simple to master, these metrics are still in use.

Sr. no	Physicochemical	Observation
1.	Angle of Repose	31.04
2.	Tapped Evaluation	26ml
3.	Bulk density	34.46ml
4.	Hausner’s Ratio	2.1
5.	Carr’s Index	24

Table No. 8: Rheological Evaluation and Investigaiton.

Spreadability

An internal tool was used to make the determination. The device is made up of a wooden block with a fixed glass slide, a moving glass slide with one end attached to a weight pan being rolled by a pulley, and a fixed glass slide that was in the horizontal level. Based on the gel's 'Slip and Drag' properties, the spreadability of the prepared gel was evaluated. On the bottom slide, more gel (approximately 2 g) was added for the experiment. After that, two slides were placed on top of the gel. For five minutes, a one kilogram weight was put on top of the two slides to force air out and create a homogenous gel coating between them. The borders were scraped clean of extra gel. Next, 50 gramme of gel were removed from the top plate and mixed with the aid of a thread tied to a hook. The time (T, in seconds) needed for the top slide to move 7.5 cm was then recorded. Better spreadability was indicated by a shorter interval.

Washability:

This is how most people verify whether a formulation is washable. After the mixture was applied to the skin, the ease and thoroughness of water washing were manually assessed using 1 litre of water.

DISCUSSION AND RESULTS

Solidfeature:

On a number of characteristics, the pack was developed and standardised. The pack demonstrated its ability to flow freely. It was discovered that the created formulation was of high quality, pale yellow in colour, and had a nice aroma that was ideal for cosmetic formulations. The pH of the formulation was discovered to be 7.2 pH, which is close to the neutral range. Ash and moisture content were verified to be within acceptable ranges. Glycosides and volatile oils were found during phytochemical screening. It was determined that the rheological characteristics were adequate and appropriate for a powdered formulation.

Irritancy Test:

When applied topically, the formulations tested for irritancy did not cause any irritation, irritation, rashes, or redness.

Stability Studies

The stability analyses revealed that the formulation's pH barely altered while it was being kept, and no variations were seen at ambient temperature, 33°C, or 40°C. Other stable factors showed no change in hues, smell, texture, or smoothness.

CONCLUSION

People today require therapy for a variety of skin issues without adverse effects. Natural components opened the door to the creation of cosmetics without negative side effects. Herbal products are regarded as an effective and sustainable technique to enhance skin look. As a result, the formulation of the herbal package in this paper, which includes readily available substances like sandalwood, turmeric, corn starch, coffee, and orange peel, is superb. It is implied that the developed Polyherbal mask formulation had the properties of a typical cosmeceutical skincare formulation and was physically and chemically stable.

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