



FORMULATION AND EVALUTION OF ALOEVERA MOISTURIZER

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ABSTRACT :

Aloevera moisturizers was prepared from the various extracts of ingredients (Aloe juice, Agar-Agar Almond oil, vitamin c,and sandalwood oil).After the formulation test, spreadability,ph, viscosity and Washibility. Aloe vera Moisturizers harness the hydrating powers of the gel extracted from aloevera plants.It is widely used because it contains the natural remedies materials are much safer than synthetic material with less side effects.It mainly contains the ingredients such as the Aloe juice,Agar-Agar, Almond oil, Vitamin C ,and sandalwood oil which increases the hydration an nourishment of the skin.Aloe juice provides a soothing base , while Agar-Agar enhances the Moisturizers consistency.Almond oil adds a touch of luxury delivery essential fatty acids for skin health and also acts as preservatives.Vitamin c acts as a brithing agents, promoting a youthful glow and sandalwood oil lends it's aromatic essence leaving you with a spa-like experience.

Keywords:aloevera,extracts,harness,natural,vitamin c

INTRODUCTION :

Aloe vera gel's calming and moisturizing qualities are infused into aloe vera moisturizer, a skincare product.Aloe vera, well-known for its inherent healing properties, helps moisturize and nourish skin, leaving it feeling renewed and invigorated.This moisturizer is frequently used as a mild remedy for people with sensitive skin, to reduce dryness, and to encourage skin elasticity.Aloe vera moisturizer is prized for its anti-inflammatory properties, which go beyond mere hydration and make it a good choice for soothing inflamed skin and lowering redness. Packed with vitamins, minerals, and antioxidants, it helps restore damaged skin cells and promotes a youthful complexion, supporting overall skin health.Aloe vera moisturizers are perfect for daily use because of their lightweight, non-greasy texture, which forms a barrier that locks in .

ADDITIVES USED IN ALOEVERA MOISTURIZER:-

- **Gelling agent :-** A gelling agent is a substance that thickens or solidifies liquid solutions
- **Preservatives :-** Preservatives are substances added to products to prevent or slow down the growth of microorganisms
- **Perfuming agent :-** A perfuming agent is a substance added to a product to provide a pleasant fragrance.

ADVANTAGE

1. **Hydration:** Moisturizers help to keep the skin hydrated by preventing water loss.
2. **Skin Barrier Protection:** They contribute to the skin's natural barrier function, safeguarding it from environmental factors.
3. **Improved Texture:** Regular use can lead to smoother and softer skin.
4. **Reduced Dryness:** Moisturizers are effective in alleviating dryness and discomfort .
5. **Prevention of Premature Aging:** Properly moisturized skin is less prone to fine lines and wrinkles .

PROPERTIES OF ALOEVERA MOISTURIZERS

1. **Hydrating Agents:** Moisturizers contain ingredients like humectants that attract and retain water .
2. **Emollients:** These ingredients help to smooth and soften the skin, improving its texture and appearance.

3. **Occlusives:** Substances like waxes or silicones form.

USES OF ALOEVERA MOISTURIZER :-

1. Hydration: The primary function is to hydrate the skin, preventing dryness .
2. Skin Barrier Support: Moisturizers help reinforce the skin's natural barrier, protecting it from environmental factors .
3. Anti-Aging: By keeping the skin hydrated, moisturizers can contribute to reducing the appearance of fine lines and wrinkles
4. Soothing Irritated Skin: Moisturizers with calming ingredients can soothe and alleviate irritation
5. Improving Skin Texture: They can enhance the overall texture of the skin, making it smoother and softer.

MECHANISM OF ACTION OF ALOE VERA MOISTURIZER

- Transepidermal water loss is the term for the regular evaporation of water from the human skin's deeper layers.
- The surface of human skin is naturally dry and easily shed, acting as a barrier against viruses, debris, and damage from controlling its moisture content, preventing dehydration and brittleness, and rigid.
- The active ingredients in moisturizers change the rate at which water is lost. and they can be classified into two types: humectants and occlusives.

LITERATURE REVIEW OF ALOEVERA MOISTURIZER

1. First, as stated by Vijaya Sadashiv Rabade The formulated cream demonstrated good consistency and spread ability, homogeneity, pH, nongreasy properties, and no phase separation during the research study period, according to the results above. Based on the aforementioned research, it can be inferred that the moisturizingBecause the cream is made more acceptable. that compared to synthetic ones, they are less harmful and have fewer side effects. Therefore, the benefits of herbs in cosmeceutical has significantly enhanced the personal care system, and there is a strong market for herbal cosmetics. these days. A herbal cream that is non-toxic, secure, efficient, and increases patient adherence use of herbal .
2. Aloe Vera moisturizers is used for its many medicinal qualities, including emollient, antimicrobial, anti-inflammatory, antioxidant, aphrodisiac, anthelmintic, antiseptic, and cosmetic value for health care, according to TO Preetha S. Panicker and Manjusha MP. Consequently, this could be a medium for using these therapeutic properties as a straightforward dosage form with ease and effectiveness. It was found that the poly herbal formulation and its constituents were consistently high-quality and pure, making them suitable for everyday use as face cream. Thus, it can be said that the formulation is suitable and safe for skin use.
3. Per Prashant Chavan, Mallinath Kalshetti, and Nikil Navindgikar's account The extracts of Nyctanthes arbor-tristis leaves, Eugenia caryophyllus oil, and Zingiber officinale oil have the ability to relieve pain and are combined in a polyherbal cream formulation. The slab method was used to formulate the cream, and it was then assessed by different assessment criteria, including physical characteristics, PH, spreadability, washability, and non-irritancy test, cream's viscosity and phase separation, which produces positive results
4. Madhuri Baburao Pawar and Tejswini Devidas Navgire both claim The aforementioned findings indicate that there was no phase separation during the research study period and that the formulated cream had good consistency and spread ability, homogeneity, pH, and non-greasy qualities. It is possible to conclude from the research above that the Because it is made of herbal extract, polyherbal moisturizing cream is safe to use. Since they are thought to be safer and have fewer side effects than synthetic ones, natural remedies are more widely accepted. one. Therefore, the benefits of using herbs in cosmeceuticals for personal care products have greatly improved. Herbal cosmetics are highly sought after these days. A herbal cream that is safe, effective, and non-toxic and increases adherence from patients by using.
5. In accordance with Sahana Shrestha, Rupesh Kumar Gupta, and Rajendra Gyawali The Rajendra Joshi Prem Narayan Paudel In this study, a topical polyherbal cream with potent antioxidant properties was made. The pH of 5.50 formulated cream has a nonNewtonian positive thixotropic flow both alcohol and other substances. When cetyl alcohol concentration rises, the viscosity of cream rises, but a rise in stearic acid content results in less spreadability of the yogurt.Important factors including pH, viscosity, and spreadability were optimized in the formulation. within the allowable range, so a well-permeable topical cream made of polyherbal ingredients was created. A topical polyherbal cream was created.

INGREDIENTS

1. ALOE JUICE
2. AGAR-AGAR
3. VITAMIN C
4. ALMOND OIL
5. SANDALWOOD OIL

ALOE JUICE



Biological Source: Aloe's dried leaf latex

Family :It is a member of the Liliceae

Chemical Constituents: phenylpyrone derivatives, flavonoids, phenylpropanoids, coumarins, phytosterols, naphthalene analogs, lipids, and vitamins.

Uses

Heals Wounds and Calms Burns.

AGAR-AGAR



Biological Source:dried gelatin derived from a number of different red algae species, including Gracilaria

Family: Gracilariaceae

Chemical Constituents: Agar is made up of two polysaccharides: agarose and agarpectin, with agarose accounting for around 70% of the combination and agarpectin for roughly 30%. Agarose is a linear polymer composed of repeated units of agarobiose, a disaccharide consisting of D-galactose and 3,6-anhydro-L-galactopyranose.

Uses:

1. As an emulsifying agent.
2. As a culture medium in bacteriology

VITAMIN C



Biological Source:

Citrus fruits, green peppers, red peppers, strawberries, tomatoes, broccoli, brussels sprouts, turnip, Indian gooseberry, and other leafy vegetables are high in vitamin C.

Uses: It is used to treat scurvy.

It protects against bacterial infections.

ALMOND OIL

Almond oil contains nutrients such as vitamin E, magnesium, and other minerals. Almonds are a nutritional powerhouse. They're high in good fats, fiber, phytochemicals, vitamins, and minerals.

Family: Rosaceae

Uses: Sweet almond oil contains a variety of skin-beneficial nutrients, including vitamins, minerals, fatty acids, and antioxidants.

SANDALWOOD OIL**Biological Source:**

Sandalwood album oil (SAO), also known as East Indian sandalwood oil (EISO), is an essential oil distilled from the Santalum album tree that has been shown to have antiinflammatory, anti-microbial.

Uses :-

Sandalwood is commonly used for its aromatic wood, which is valued in perfumery and incense.

OBJECTIVE

- Aloe vera's natural characteristics help to soothe and hydrate the skin, making it an ideal ingredient for moisturizers.
- Aloe vera also helps to reduce inflammation and irritation.
- Aloe vera also aids in promoting a healthier complexion and increasing skin suppleness.

NEED FOR RESEARCH OF ALOEVERA MOISTURIZERS

- Aloe vera moisturizers need to be thoroughly studied in order to confirm their effectiveness in treating a range of skin conditions, identify the best formulas for different skin types, evaluate any -edge delivery systems, and comprehend the molecular processes underlying aloe vera's skincare advantages.
- The efficacy, safety, and enjoyment of products can all be enhanced by this research.

EVALUATION TEST FOR ALOE VERA MOISTURIZER

- Physical assessment: This is primarily used to assess the color, flavor, texture, and stability of the cream.
- Viscosity: This test's main goal is to ascertain how cream's ingredients will act in a genuine manner. Its main objective is to assess efficacy.
- Washability: This technique is also used to test the cream's quality. First and foremost, we must add a tiny bit of the cream that was applied to the hand. Next, we have to wash with tap water. following that.
- Spreadability: The capacity to spread

METHODOLOGY AND PREPARATION OF ALOEVERA MOISTURIZERS

1. Take a fresh aloe leaf from plant.
2. And this aloe leaf in the upright position in china dish or any other container or bowl.
3. For 1 min maximum.
4. We can observe its yellow colour liquid in the bowl. The yellow resins comes out of the china dish.
5. This yellow liquid can cause irritation in our skin.
6. So it is important to remove from the leaf. It is an important step.
7. After completing the removal of yellow liquid.
8. Wash the leaf with the distilled water properly.
9. Clean the leaf with clean cotton cloth to make it dry.
10. Then cut leaf into two equal parts.
11. Then by using spatula and spoon, scoop out the pulp.
12. And collect all the pulp and transfer into a container.
13. Completely scrap out the pulp from both the leaves properly.

Extraction of Aloe vera :- To convert in liquid form by using mixer grinder.

1. Blend the pulp in mixer grinder till it becomes smoothly liquidify.
2. Filtration of Aloe vera juice :-
3. By using mucilage cloth or cotton cloth.
4. And collect the filtrate in beaker.
5. It is done to remove the fibres.
6. And heat the fiber free aloe liquid for " 2 - 3 mins."
7. And remove the "spurt" from the above of the juice while heating using spatula.
8. The temperature of heating mantle is between " 50 - 60°C"
9. After heating, remove it from heating mantle and keep aside for cooling.

AGAR AGAR

1. Now measure 20ml of pre - boiled water or distilled water in beaker.
2. To this beaker containing 20ml of distilled water add " 1mg of agar agar ".
3. Agar - agar is a gelling agent :- which converts the liquid into the gel properly.
4. Then mix it with the glass rod.
5. Now to completely dissolve the agar - agar in a water.
6. Boil the beaker containing agar - agar in a heating mantle.
7. Boiling will help to dissolve agar - agar in water.
8. After this " 30ml" of aloe juice is immediately transferred into a hot solution of agar-agar.
9. Then by using glass rod mix the solution of agar- agar and aloe juice.
10. Then add " 500mg" of "vitamin C" to this solution and mix it.
11. Then transfer the 2ml of almond oil into it.
12. Almond oil contains "vitamin E" which is also a Natural preservative.
13. Then add 2- 3 drops of sandalwood oil
14. Then keep at a side at a room temperature for cooling.

15. After cooling liquid it will convert into a gel form.
16. Then transfer the aloe gel preparation into a proper container.

FORMULATION TABLE FOR 50 GRAM

Sr.No.	Ingredient	Quantity	Roles
1	Agar-agar	1mg	Gelling agent
2	Aloe juice	30ml	Moisturizer
3	Vitamin C	500mg	Natural preservative
4	Almond oil	2ml	Preservative
5	Sandlewood oil	2-3 drops	Perfuming agent
6	Food grade green colour		To give green colour

WORK PLAN SCHEDULE

- A survey of literature, the collection of plant material, and the extraction of herbal drugs.
- Choosing Ingredients for Formulation.
- The creation of the formulation.
- An assessment of the prepared formulation.

CONCLUSION

- Herbal ingredients were successfully used in the formulation and evaluation of a moisturizer that complied with all pertinent pharmaceutical requirements.
- Based on the study's results, aloe vera were examined for their capacity to moisturize skin while simultaneously lowering skin coloration.
- Aloe vera extract were found to improve skin hydration and function well. as hydrators for the skin.

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