



A comprehensive review article on “FORMULATION AND EVALUATION OF HERBAL FACE PACK FOR GLOWING SKIN ALOE VERA: A WONDER OF EXCIPIENT”

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Abstract:

Aloe Vera Is a Herbal Product That Is Now a Days Frequently Used Within The Subject Of Cosmetology. Although There Are Various Indicators For Its Use, Managed Trials Are Needed To Determine Its Real Efficacy. The Aloe Vera Plant, Its Properties, Mechanism Of Movement And Clinical Uses Are Briefly Reviewed In This Article. Aloe Vera, Commonly Known As Barbados Or Curacao Aloe Is An Herbal Medicine With Along Tradition Of Use By Verity Of Cultures. The Succulent Plant Grows In An Arid And Subtropical Climate And In Best Known For Two Distinct Preparation. This Plant Is One Of The Richest Natural Sources Of Human Being Coming . The Chemistry Of Plant Has Revealed The Presence Of More Than 200 Different Biologically Active Substance . most of the Biological Properties Associated With Aloe vera Species Are represented by Leaves Of The Inner Gel many Research Has Been concentrated On The Biological Activities Of The Various category Of Aloe vera . The Present Review Focused On The Detailed Composition Of Aloe Vera Gel ,Its Various Phytocomponants Having Various Biological Properties That Help To Improve Health And Prevent Disease Condition .

KEY WORDS : Aloe Vera ,Family Anti-Inflammatory Antioxidant ,Appearance ,Physiochemical Properties

General Description :

The Aloe Vera Plant Has Been Known And Used For Centuries For Its Healthy ,Beauty, Medicinal & Skin Care Properties. The Arabic Name of Aloe Vera Derived From The Word “Alloeh” is called the “Shining Bitter Substance “ it’s a greek word While “Vera” In Latin Means True The Egyptians Called Aloe “ The Plant Of Immortality”. Today ,The Aloe Vera Plant Has Been Used Various Purpose In Dermatology. Aloe Vera Gel Is a Natural Substance Derived From The Leaves Of The Aloe Vera Plant Renowned For Its Therapeutic Properties . Aloe Vera Is a Succulent Plant Belonging To The Asphodelaceae Family , Recognized For Its Thick ,Fleshy, Lanceolate Leaves With Serrated Edges , Primarily Cultivated For The Clear Gel Found Within Leaf Interior ,Which Is Used Extensively In Cosmetics & Medicine Due To Its Purported Wound -Healing ,Anti-Inflammatory ,And Antioxidant Properties . Appearance - They Are Steam-Less Or Short -Steamed Plant With Thick .Fleshy, Green- Greyish Leaves



Fig No.01

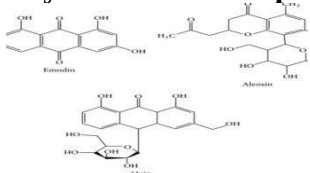
Discovery And Further History : The Species Aloe Vera Was First Discovered By Carl Linnaeus In 1753 As Aloe Perfoliata Var. Aloe Vera Has Been Used For Medicinal Purpose In Several Cultures For Millennia : Greece , Egypt,India,Mexico,Japan & China . Egyptian Queens Nefertiti And

Cleopatra Used It As Part Of Their Regular Beauty Regimes . Alexander The Great And Christopher Columbus Used It To Treat Soldiers Wound . The First Reference To Aloe Vera In English Was a Translation By John Good Yew In A.D. 1655 Of Dioscorides Medical Treatise De Materia Medica By The Early 1800s ,Aloe Vera Was In Used As Laxative In The United States , But In The Mid- 1930s , a Turning Point Occurred When It Was Successfully Used To Treat Chronic And Severe Radiation Dermatitis . Aloe Vera Gel Has a Long & Rich History , Dating Back Thousands Of Year .The Modern Use Of Aloe Vera Gel For Range Of Purposes -Such As Treating Sunburn ,Cut ,Burn And Dry Skin - Has Only Grown . In The 20th Century , With Rise Of Commercial Aloe Vera Production , The Gel Began To Appear In a Wide Variety Of Over The Counter Product , From Lotion To Shampoo To Drink . Today Aloe Vera Gel Is Common Household Product Used Not Only Medicinal Use But Also In Cosmetic , As It Is Believed To Have Anti Inflammatory , Antimicrobial.Aloe Vera In The Americas Aloe Vera Was Introduced To The Americas By Spanish Explorers In The 16th Century. They Brought The Plant With Them On Their Ships As a Medicinal Herb.Modern Discovery Of Aloe Vera The Modern Discovery Of Aloe Vera Dates Back To The 1930s When a Chemist Named Rodney Merrill Began Studying The Plant's Healing Properties. He Discovered That Aloe Vera Contains a Substance Called Acemannan, Which Has Anti-Inflammatory And Immune-Boosting Properties. Greek And Roman Empires Alexander The Great Legend Has It That Alexander The Great Used Aloe Vera To Treat His Soldiers' Wounds. Dioscorides (78 AD) This Greek Physician And Botanist Documented Aloe Vera Medicinal Properties In His Book "De Materia Medica. Aloe Vera Was Introduced To "Medieval Europe And Beyond Arab Traders Europe By Arab Traders. Modern Times 1930s Aloe Vera Gained Popularity In The United States For Treating X-Ray Burns. 1970s The Use Of Aloe Vera Gel In Health Foods And Cosmetics Began To Rise. Today, Aloe Vera Continues To Be a Popular Natural Remedy And Skincare Ingredient Worldwide, With Scientific Research Supporting Many Of Its Traditional Uses. The Exact "Discovery" Of Aloe Vera Is Difficult To Pinpoint, As Its Use Dates Back To Ancient Civilizations. However, Here's What We Know, Early Evidence The Earliest Recorded Use Of Aloe Vera Is Found On Sumerian Clay Tablets Dating Back To Around 2200 BC, Where It Was Described As a Laxative. Ancient Civilizations Aloe Vera Was Highly Valued In Ancient Egypt, Where It Was Used For Medicinal Purposes, Beauty Care, And Even In The Embalming Process Of Pharaohs. Spread And Continued Use From There, Its Use Spread Through Various Civilizations, Including The Greeks, Romans, And Across Europe.While a Specific Individual Or Event Can't Be Credited With Its "Discovery," It's Clear That Aloe Vera Has Been Recognized For Its Beneficial Properties For Thousands Of Years.

Synonyms: Aloe Musabar , Aloe Humilis Blanco,Aloe Indica Royle ,Aloe Barbadensis, Aloe Perfoliate Var Aloe Vulgaris Lam.

Types: I) Aloe Vera Barbadensis Miller Ii) Aloe Vera Chinensis Iii) Aloe Vera Ferox Iv) Aloe Vera Perfoliate .

Physiochemical Properties: Structure –



Chemical Name - Aloe Barbadensis

Iupac Name -(1s,2s,3s,4s)-1234-Tetrahydroxy-5-(Hydroxymethyl)-23-Dihydro-4-Oxypyran-2- Yl|Methyl Chromen -3-

Carbaldehyde .

Solubility- Highly Soluble In Water , Limited Solubility In Organic Solvent Like Alcohol Or Oils .

Melting Point - 60-70°C . **Molecular Weight**-267.28 g/Mol. **Molecular Formula** -C₁₆H₁₃NO₃. **Taste** -Bitter

Density-0.1018g/Mol

Method Of Synthesis -Selecting Of Mature , Healthy Aloe Vera Leaves . Cut The Leaves From The Base. Extracting The Gel -Peel The Leaves . Cut The Outer Layer Of Leaves And Remove Green Upper Layer & Collect The Clear Inner Gel That Are Soft Transparent And Slimy In Texture .After This Phase To Purify The Gel ,Remove All Yellow Coloured Latex .This Yellow Sap Known As Aloin Just Under There Skin , Which Can Be Cause To Irritant The Skin .Rinse The Gel ,Wash The Extracted Gel Thoroughly To Remove Any Type Of Latex And Debris .Next Step Is Processing And Stabilization To Add The Homogenizes To Break Down The Any Type Of Fibre And Achieve a Smooth Consistency . Then Last Step Is Addition Of Preservative Like Citric Acid Or Vitamin.c .Then Formulation Will Be Ready .

Functions And Uses –Aloe Vera Creams, Gels, And Liquids Contain Different Amounts. Some Creams For Minor Burns Have Just 0.5% Aloe Vera. Others Used For Psoriasis May Contain As Much As 100% Aloe Vera . Oral Supplements Have No Set Dose.

The Suggested Amount To Use Varies By The Product:

- Leaf Gel Cap Fifty To Two Hundred Milligrams/Day
- 30 Milliliterliquid
- Tincture: 15 To 60 Drops a Day Mixed With Juice Or Water
- Apply Topical Three To Five Times a Per Day

Oral High Doses Of Aloe Vera Extract Or Aloe Vera Latex Can Be Dangerous To Health Of Human Being. People Who Take One Gram a Per Day Of Aloe Latex For Several Days Are At Risk For Severe Kidney Damage And May Cause Death. These Are Not Official Doses. Consult On Your Physician For Advice On How To Use Aloe Vera And How Much Quantity Will Be Take.

Handling Precaution- Firstly Wear Gloves , Always Wear Gloves When Handling Aloe Vera As Many People May Be Allergic To That. Also, Make Sure Sterilize All The Equipment To Avoid Introducing Bacteria Or Other Contamination Like Foreign Particle During The Extraction Process. **Storage**- Aloe Vera Is Used For a Many More Of Purposes It Can Be Consumed In Beverage Forms For Extra Health Benefits Purpose .If You Have The Buy Aloe On The Shop Of Grocery , You Can Aloe Harvest From a Plant At Home. But Once You Have That Leaf, You Can Cut, Peel, And Store Your Aloe Leaf To Keep Aloe Permanantly Available, And You Can Even Honey Mix It To Use As a Face And Hair Moisturizer As Cosmetic .

Incompatibilities- Aloe Are Interacted With Less Amount Of Medication And Supplement And It May Cause Allergic Reactions In Large Number Of Peoples.

Blood Thinner: Aloe Vera Contains Salicylates In Blood , Which May Cause Blood-Thinning Effects.

Diabetes Drugs : Aloe Vera Are Help To Petient To Lowering The Diabetes In Blood Sugar Level And Improving Insulin Sensitivity .

Laxatives: Aloe Vera Stimulant Laxatives Taking With Cause More Diarrhea In Patient .

Other Contraindications :

- Aloe Vera Should Not Be Taken Pregnant Or Breastfeeding .
- Children Does Not Take Aloevera Under Age Of Twelve.
- The Liver Diseased People , Intestinal Problems , Or Appendicitis Will Not Take To Aloe Vera .
- When The Nausea People And Disentery Peaople Should Not Take Aloe Vera.

Allergic Reactions :

1. Rashesh
2. Irritation of Skin
3. Difficulty in breathing
4. Redness on skin
5. Itching on skin
6. Hives
7. Chest pain
8. Face Swelling , lips swelling and tongue swelling
9. Urine Red
10. Constipation

Adverse effect- Aloe vera latex in shape of leaves, it can be comes from underneath the skin plant's . such a large number of people latex are allergic , which can causes lots of stomach problem like irritation, stomach pain and potassium levels low .latex are safe Externally, if applied properly. Many research is applied .1.many people can cause allergic reaction from aloe vera ,can cause allergies on the skin , eyes redness , rashes on skin , irritation and burning, itching sensation. 2.storing of aloe vera juice must be drop to sugar level in blood . It has effects of laxative ,it can be less amount of chances

of electrolyte imbalance in diabetics patient . If any one are a diabetic in your family , it is most helpful to consult a doctor before taking aloe vera juice. 3.The effects laxative of aloe vera can causes lead to dehydration .alleviate constipation are Laxatives generally used to , if you can take more quantity of aloe vera should be as per recommended by physician , they causes dehydration loss of appetite . 4.It is consult the pregnant women and breastfeeding mothers must be avoid aloe vera juice drinking due to its irritant to the mothers . It may uterine contractions stimulate in pregnant women, which may causes to complications in birth in new born child . 5.potassium level in the body should be lowered due to the aloe vera juice , further causing heartbeat irregular , fatigue and weakness . aged and sick people should not take the aloe vera juice ..6.The compounds of bio-active in aloe vera must be interfere with detoxification process in liver's , must be causing complications in health .6.one of the most common side Stomach discomfort is effected due to drinking of aloe vera juice. The excessive cramps causes latex and pain in the stomach . Do not taken aloe vera juice, especially in suffering from severe stomach problems.

Evaluation-

Assay-the results on identity assay & strength of Aloe vera powder and proximate composition are shown in Table 1 and 2 respectively. The carbohydrate content (56.27 %), which is the highest parameter, is a good source of carbohydrate provide readily accessible fuel for physical performance and regulate nerve tissue(Whimey and Rolfes 2005).

From Table 2 it is evident that ash content was the second highest parameter noted 19.50% in the present study. Ash content is a reflection of the mineral preserved in the sample represents the total mineral content, which are essential for the proper functioning of tissues and act as second messengers in some biological cascade mechanisms (Antia et al., 2006). Ash content may be important for several reasons as it is a part of proximate analysis for nutritional evaluation.

Protein which would be serve as enzymatic catalyst, mediate cell responses, control growth and cell differentiation (Whimey and Rolfes 2005) was the third highest (10.50 %) parameter noted.

Moisture content determination is one of the most fundamental and important analytical procedure was observed (6.75%).The lowest parameter noted was crude fat content (1.83%), which are universally stored forms of energy in living organisms. They are major structural elements of biological membranes as phospholipids and sterols (Nelson and Cox 2008).The mineral matter phosphorus that makes up 1% of a person's total body weight was found to be 1.90 mg/g of Aloe vera powder. It is present in every cell of the body.

Table 1. :-

Identity	strength & assay of Aloe Vera powder Constituents
Amount Foreign organic matter	Nil
Purity	100%
Moisture	6.75%
Total ash	19.50%
Water soluble ash	12.50%
Acid insoluble ash	2.25%
pH values (1% solution)	6.9
Solid content	68.50%

Table 2. :-

Sl. No	Proximate composition of Aloe Vera leaves.	Parameters Percentage (%)
1.	Ash	19.50
2.	Carbohydrate	56.27
3.	Protein	10.50
4.	Crude Fat	1.83
5.	Phosphorous	1.90 mg/g

PH Of Aloe Vera -4.5 TO 5.5 They Are Alkiline In Nature .

Loss On Drying-The Moisture Content Of Aloe Vera Gel Was Measured As Per Cent Wet Basis (% Wb) And Per Cent Dry Basis (% Db) By Oven Method. Moisture Content Was Determined By The Standard Method Aoac 934.06 [26]. Using An Oven And An Analytical Balance (± 0.0001 g Accuracy). The Samples Were Placed In Hot Air Oven At $100 \pm 0.5^\circ\text{C}$ For 18 Hrs. The Moisture Content As The Percentage By Mass Of The Samples Was Calculated By Following Equation [27]. Triplicate Samples Were Used For Determination Of Moisture Content And Average Values Were Recorded.

Where,

M_1 =Initial Mass Of Aloe Vera Gel Before Drying (g) M_2 = Final Mass Of Aloe Vera Gel In After Drying (g)

Marketed Product-1. This Way ointment are Plum Hello Aloe Cal to . Rich Alo-Juice.



FIG NO -02

Key Ingredients in Plum Aleo vera Gel Brand -Rich alo-juice, bio sugars, green tree extracts, Glycerine, Propanediol, Sodium Gluconate, and more natural skincare ingredients that help to keep the skin moisturized and healthy

2. Aroma Treasures Aloe Vera Gel Brand-Natural Aloe vera-



Fig No -03

Key Ingredients in Aroma Treasures Aloe Vera Gel -The main four ingredients that make this brand of aloe vera gel a must-buy are- Natural Aloe vera, Lavender, Vetivert, and Chamomile.

3. Greenberry Organics Aloe Vera Hydro 3 In 1 Gel



FIG NO -04

Key Ingredients of Urban Botanics Pure Aloe Vera Gel Brand in India-Aloe Vera Juice, Citric Acid, Glycerine, Propylene Glycol.

5. Lakmé 9 to 5 Naturale Aloe Aquagel



FIG NO -05

Key Ingredients in Lakmé 9 to 5 Natural e Aloe Aqua-gel-Demineralized Water, Aloe Juice, Glycerine, PEG 40 Hydrogenated Castor Oil, Geranyl Acetate, and many more

Patent -1.Method of processing strengths aloe vera leaf obtained from the whole aloe vera purified gel.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to a method of preparing stabilized aloe vera gel, and, more particularly, to a cold process for preparing aloe vera gel from the whole leaf that allows for both topical applications and internal applications.

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10. US5356811A1994-10-18Method of processing stabilized aloe Vera gel obtained from the whole aloe Vera leaf

Conclusion: The aloe Vera history of is varied and rich . From old Egypt to modern Egypt times, this revered plant has been properties for its healing . Today, it continues to be resource a valuable for commerce and medicine . conclusion, although there have been some claims about Aloe Vera being very Alkali-sing – its true nature deviates far from what has been claimed; It still retains its natural Acidic Properties ranging from ~4-6PH depending based on how it's processed/produced. The miraculous medicinal plant Aloe Vera has been proved to be a good source of protein, carbohydrate, fat and minerals. It could, therefore, be used as an important dietary source of nutrients in a food based approach for combination micro nutrient deficiency

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