Review Articles On Herbal Sunscreen Cream

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Abstract:-

Creating sunscreen cream formulations with a high sun protection factor (SPF) and desirable properties was the aim of this study.

Zinc oxide, an organic UV filter, and titanium dioxide, an inorganic UV filter, were the active ingredients. Through the use of an

emulsification technique, two ideal cream bases were created from a number of trial formulations and combined with both active

ingredients at the permitted concentrations. The samples' physical characteristics, pH, viscosity, and in vitro SPF were measured.

Aditionaly, the SPF of the sunscreen creams was compared to that of their equivalents that included titanium dioxide or zinc oxide at

the same concentrations. The stability under freeze-thaw conditions was investigated. The findings showed that the combination of

sunscreens' synergistic efficacy on SPF was validated. The SPF was impacted by the inherent characteristics of cream bases, particular.

larly viscosity in the final product. Costs associated with disease were significantly reduced with a small investment in prevention.

The final orders from the FDA regarding sunscreen labeling were just made public. Regarding over-the-counter (OTC) sunscreen

products, the final monograph revises the tentative final monograph. The term "sun block" will no longer be used, and a statement

regarding the need of sunscreen to prevent sun damage will be included in the labeling standards. There will also be three categories

for sun protection: minimum, moderate, and high.

Keywords: Sunscreen; SPF; UV Filter.

INTRODUCTION

CREAM

Creams are defines as “a semisolid do sage form containing one or more drug substances dissolved or dispersed in a suitable base” Creams are semi-solid emulsions of oil and water.

They are of a softer consistency & lighter body than true ointment. Semisolid emulsions of either O/W or W/O type.

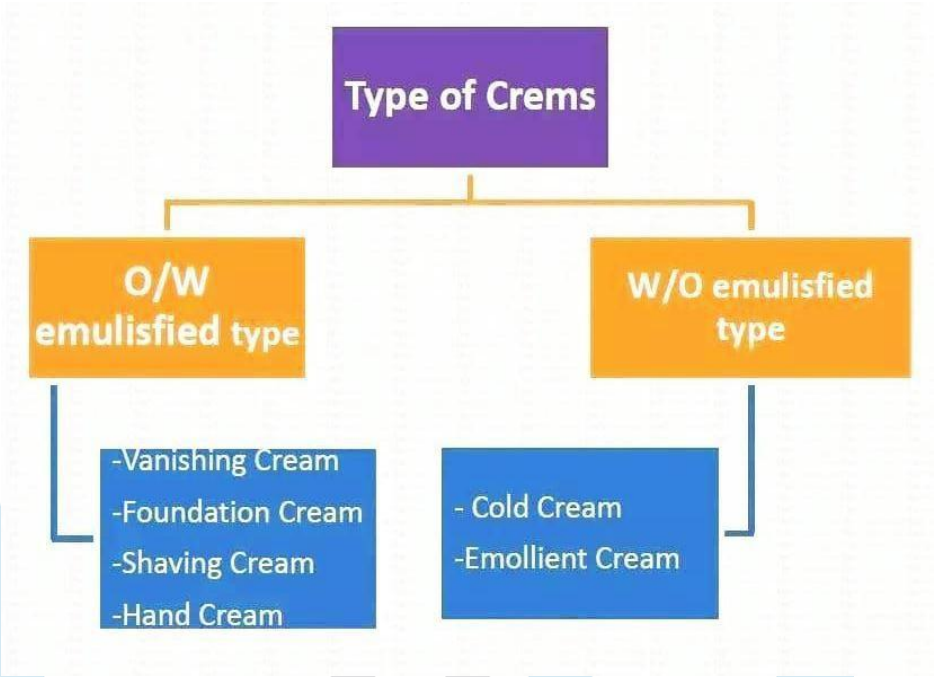


Fig:-01

SUNSCREEN

Herbal Sunscreen(also known as Herbal sun block, Herbal suntan lotion) is a cream, lotion, spray or other topical product that helps protect the skin from the sun's ultraviolet (UV) radiation, and which reduces sunburn and other skin damage, with the goal of lowering the risk of skin cancer with the help of herbs.

However, in the United States, the term suntan lotion usually means the opposite of sunscreen, and instead refers to lotion designed to moisturize and maximize UV exposure and tanning rather than block it.[1]

These are commonly called indoor tanning lotions when designed for use with tanning beds or just suntan lotion if designed for outdoor use and may or may not have SPF protection in them.

UV protection is befitting very popular because of sunscreen ‟s properties as a photo- protecting agent . Sunscreen preparation is applied topically, and its purpose is to heal, prevent or resist skin from painful or harmful effects of sunburn, suntan, sun cancer, and premature skin aging and to escalate the level of Sun Protection Factor (SPF). Sunscreens are a natural defense mechanism to defend against precarious UV radiation from the skin, which is the outer covering layer of the body. Its ability to absorb, reflect or scatter some of the suns ‟ UV radiation on the skin from extravagant exposure to ultraviolet radiation. Skin melanoma, sunburn, photo aging, skin pigmentation, and various painful or precarious effects are caused by UVA and UVB rays. Anti-oxidant, wound healing, antifungal, premature aging, moisturizer, anti-inflammatory, and anti proliferative activities are shown due to the key components of UV protection like flavonoids, phenolic compounds or herbal oils and also their UV rays absorption capacity in UVA region .There are ample sunscreen formulations available in the market, which are used to protect skin from sunburn and skin cancer and during the market survey, it is

found that there are some adverse effects like cell mutation, DNA damage, hormone alteration, and eczema (allergic reaction) by the synthetic sunscreen agents. Various formulations have multifunctional sun protection activity and it is based on their efficacy of UV rays absorption apart but most of the formulations are of high cost and merged synthetic molecules have toxicity and are even carcinogenic.[3]

Herbal sunscreen also known herbal sun block .Herbal suntan lotion is a lotion ,spray or other topical product that helps protect the skin from the suns uv radiation and which reduce sunburn and other skin damage Sunscreen can be classified into two types sunscreen

1) Physical sunscreen. Those that reflect the sunlight.

2) Chemical sunscreen

Those that absorb the UV light

Sunscreen agents are for external use only .the use of sunscreen as photo protecting agents for UV protection.

The sunscreen formulations which when applied topically protect the treated area from sunburn sunscreen depends on ability to protect against uv induced sunburn and their chemo preventive activity .Excessive solar ultraviolet radiation are responsible for various skin damages such as sunburn ,skin pigmentation premature aging and photo carcinogenesis .The main mechanism of skin damage by UV radiations is formation of Reactive Oxygen, Species(ROS) that interact with proteins lipids and subsequently alter them.UVB and to a lesser extent UVA are responsible for inducing skin damages . Sunscreen should contain antioxidant agent in addition to sun block agent to be effective in prevention of photo aging and skin cancer. Plants due to their antioxidant potential are known as attractive option to be used in Sunscreen formulation for prevention of skin damage due to solar radiation

.Sunscreen is topical product that protects the skin against harmful effects of the sun .

Classification of sunscreen and the mechanism of photo protection sunscreen are classified as either topical or systemic based on the route of administration topical sunscreen are divided into two classes on their mechanism of protection.

1) organic sunscreen
2) Inorganic sunscreen

Organic Sunscreen

Organic sunscreen works by absorbing into skin and converting UV rays into heat .it is thin and ideal for everyday use allow for skin care ingredients to be added easily. Organic sunscreen actives chemical carbon based compound .it contains non mineral active ingredient.

Inorganic sunscreen

These are particles that scatter and reflect UV rays back to the environment they act as physical barrier to indent ultraviolet and UV light .They are considered broad spectrum as they cover entire ultraviolet spectrum .the Inorganic sunscreen are also referred to as sun block.

Mechanism of photo protection

Sunscreen act by preventing and minimizing the damaging effects of the ultraviolet sun rays following exposure to the sunscreen have been demonstrated to increase the tolerance of the skin to UV exposure. They work on two mechanism Scattering and reflection of UV energy from the skin surface mineral based on inorganic sunscreen works on this mechanism they provide a coating that blocks sun rays from penetrating through the skin .Absorption of the UV energy by converting it to heat energy thus reducing its harmful effects and reduce the depth which can penetrate the skin organic sunscreen works on this mechanism.

SPF–SUNPROTECTIONFACTOR

It is a measure of how well a sunscreen product will protect the skin from the harmful effects of ultraviolet (UV) radiation from the sun. SPF measures the amount of time it takes for UVB radiation to redden skin when using a sunscreen, compared to how long it takes without sunscreen.

Types of UV exposure

- UVA
- UVB
- UVC

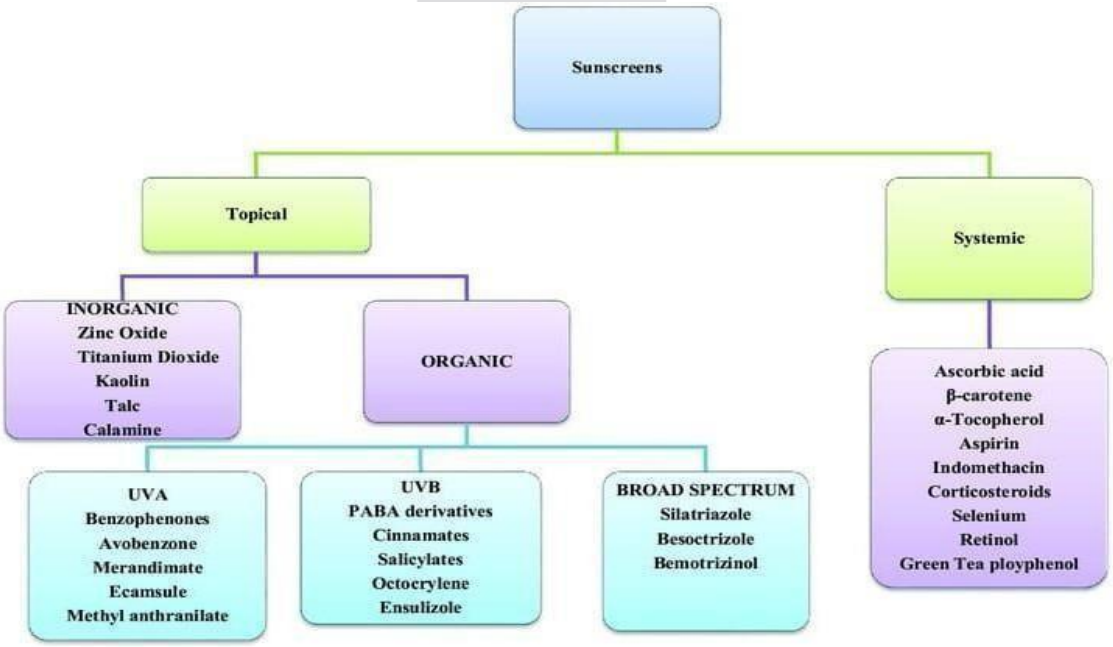


Fig:-02

Ideal Properties of Herbal Sunscreen

- Absorb light preferentially over the range of 280-320mμ.
- Resistance to water
- Be stable to heat, light, and perspiration.
- Preferably odorless, if mild odor :- accepted by the user.
- Be non-toxic, non-irritant, and non-sensitizing.
- Capable of retaining sun screening property for several hours.
- Stable under the condition of use.
- Non-stain and not be rapidly absorbed.
- Be neutral.
- Be rapidly soluble in suitable vehicles

Medical and cosmetic uses, and it offers higher UV protection.

Advantages of Herbal Sunscreen over Synthetic Sunscreen Cream

The most often used sunscreens are chemical ones. There is a concern since chemical sunscreens have the ability to damage skin biology by slowly penetrating the epidermis of the skin. Herbal sunscreens have less or no adverse effects and more photo protective power than manmade ones. Formulas for herbal sunscreen are the safest and offer UV protection that is on par with synthetic sunscreens. By scavenging for free radicals, antioxidants found in sunscreen formulas also provide efficient UV defense. It has more medical and cosmetic uses, and it offers higher UV protection.

List of the drug use in the formulation

Names of the drug

Sr. No	**Name of the drug**
1]	Aloe Vera
2]	Grapes juice
3]	Orange peel extract
4]	Green tea extract

AIM:-

Review Articles on Herbal Sunscreen Cream.

OBJECTIVE:-

- To minimize the risk of skin damage and protect the skin.
- To prevent sunburn and also premature ageing such as wrinkles.

- To decrease the risk of skin cancer and also sunburn like skin reaction.
- Convenience :To be easy to use, carry, and apply, promoting regular use.
- Affordability: To be affordable for regular use by a wide range of consumers.

fig:-03

PLAN OF WORK

STEP:1
1) Selection of drug plant
2) Selection of excipients

STEP:-2
Review article on Herbal Sunscreen cream.

STEP:-3
Review article on Herbal Sunscreen cream
1) Appearance
2) Texture
3) pH
4) Wash ability
5) Irritancy

Fig:-04

Method of Preparation

Step 1: Oil Phase
Melt beeswax + coconut oil + almond oil using water bath

Step 2: Aqueous Phase
Mix aloe vera gel + glycerin + herbal extracts

Step 3: Mixing
Slowly add aqueous phase into oil phase with continuous stirring

Step 4: Add Actives
Add zinc oxide carefully (avoid inhalation)

Step 5: Cooling
Add Vitamin E and essential oils

Step 6: Packaging
Transfer into air-tight containers

Evaluation Parameters

- Physical appearance – color, odor, texture
- pH test – should be skin-friendly (5.5–
- Spread ability – easy application
- Viscosity – consistency of cream
- SPF determination – effectiveness against UV rays
- Stability study – temperature and time-based testing
- Skin irritation test – safety check

REVIEW OF LITERATURE

Laxmikant Kantilal Banswal*1, Dhanashri Santosh Mane*2, Mohammad Sadat Khan*et,al; (2023)

Sunscreen is a chemical compound that help protect you from UV rays sunburn is caused by ultraviolet B radiation but ultraviolet a may be more damaging to the skin. Sunscreen should ideally block both wavebands. The aim of this study was to develop herbal topical sunscreen formulation based on some fixed oils, in combination with some medical plants. The objective of this work is to formulate and evaluate a cosmetic (Herbal sunscreen) for protection of skin from the natural ingredients which have different properties such as emollient, moisturizer, base, anti- acne, anti sweating in the ingredients such as Aloe Vera, Butterfly pea flower, Coconut oil, Rose water, Vitamin E Capsule etc. A modest investment in prevention produced substantial savings in illness-related costs. The FDA recently released its final orders concerning the label ling of sunscreen. The final monograph updates the tentative final monograph regarding over the counter (OTC) sunscreen products. Among the label ling standards are removals of the term "sun block" inclusion of a statement detailing the importance of sunscreen to prevent harmful effects of the sun, three sun protection categories: minimum, moderate, high, a new SPF category of 30+ or products with SPF values greater than 30, uniform, and streamlined label ling for allsunscreens.

Geetavamanbhople,Sanap.A.S.,andDr.PrachiUdapurkar,et.al(2019)

The sunlight consists of harmful radiations which affects the skin. The Ultraviolet radiations are of 3 types Ultraviolet A, Ultraviolet B and Ultraviolet C. This article gives a detailed review on different types of Ultraviolet radiation. To protect our skin from Ultraviolet radiation sunscreen formulations are used which either absorbs scatters or reflects the radiation. The harmful effects on skin like photo aging, skin cancer, DNA damage are explained. The present review explains the various types of sunscreen formulations and the agents used for the purpose of sun screening. The agents are of two type's physical and chemical sun screening agents. The physical agents which block the sun light and the chemical agents which absorb the sunlight are listed and explained. To know the efficacy of the formulation sun protection factor calculation is done. The equation used to calculate the Sun Protection Factor value is explained in detail.

The ultraviolet spectroscopic method is employed to calculate the Sun Protection Factor.

The proposed method is found to be easy and rapid for the calculation of Sun Protection Factor values in the in vitro studies. The herbal formulation is more advantageous than the chemical formulation because of its fewer side effects. Few herbal sunscreen agents are listed and explained its activity.

Miss.WaghmodeMonikaVasantProf.Khade.P.Dr.HINGANEL.Det,al: (2014)

Sunscreen is a chemical compound that help protect you from UV rays sunburn is caused by ultraviolet B radiation but ultraviolet a may be more damaging to the skin. Sunscreen should ideally block both wavebands. The aim of this study was to develop herbal topical sunscreen formulation based on some fixed oils, in combination with some medical plants. Regular use of sunscreen reduces the development of actinic keratosis (AK), squamous cell carcinoma and melanoma. Sunscreen may be organic or inorganic chemicals . Sunscreen is also known as sun block lotion The product that absorb or reflect the suns ultraviolet radiation and protect the skin. The increasing incidence of skin cancers and photo damaging effects caused by ultravioletradiationhasincreasedtheuseofsunsreeningagents,whichhaveshownbeneficial effects in reducing the symptoms .Sun screening agents should be safe chemically inert , non irritating non toxic , photo stable an able to provide complete protection to the skin against damage from solar radiation.

Ruchi Tiwari1, Indu Singh1, Monisha Gupta1,Laliteshwar Pratap Singh2, Gaurav Tiwari1*et,al(2019)

Sunscreen lotion is a sort of product that protects against the sun's harmful rays by containing ultraviolet radiation (UV rays), which is divided into two types: ultraviolet radiation A(UVA) and ultraviolet radiation B (UVB). The incorporation of herbal materials into sunscreen is one of the most effective and natural ways to protect against the sun, as measured by the sun protection factor (SPF), as well as the detrimental side effects of toxic chemicals. The present study aimed to develop herbal sunscreens containing turmeric (strong antiseptic property which protects skin from bacteria caused by excess

sweat), coconut oil (used as a sun-block agent and helps to protect skin from sun damage), aloe Vera (give a cooling effect to the skin and work as skin barrier), lemon (used to protect skin for sunburn) which will be effective for skin and protect skin against harmful sun rays, sunburn, and skin cancer.

Prepared herbal sunscreens were evaluated for physicochemical characteristics, SPF, thermal stability, antioxidant activity, in vitro mutagenic and stability. Results showed that the F5 and F6 herbal sunscreens were of good consistency and viscosity with excellent antioxidant, non- mutagenic, nonirritant, stability activity and possessed 33.50 SPF for normal skin. In comparison to F1through F4, formulations with a coconut oil base and carrot seed extract (F5 and F6) were shown to be stable and effective, with a high SPF.

P. R. Deepthi Swapna*, B. A. Vishwanath, K. Bharathi, Mithun Kumar and Bibek Agri et,al:(2017)

The sunlight includes dangerous radiations which influence the skin health. Herbal sunscreens resource the body's protection mechanisms to shield against harmful UV radiation from the sun. In the present study, sunscreen creams were formulated with Turmeric extract and Aloe Vera extract. Physicochemical evaluations and in-vitro evaluation was done and of Sun Protection Factor (SPF) were also performed for the formulations. The SPF calculation of prepared cream was done using Mansur equation and was compared with a marketed herbal product. The formulated cream was having good physicochemical characteristics. The SPF evaluation results (SPF-24.888) indicated that the prepared herbal sunscreen has promising sun protection activity.

Ashitha SaffrinM*1,Raman Suresh kumar 2et,al;(2022)

The objective of present work was to develop novel sunscreen creams containing polymeric Nanoparticles (NPs) of more in. Polymeric NPs containing more in were prepared and optimized. The creams containing more in NPs were also prepared and evaluated. Optimized NPs exhibited particle size of 90.6nm and zetapotentialof−31mV.The entrapment efficiency of more in, within the polymeric NPs, was found to be low (12.27%). Fourier transformed infrared spectroscopy and differential scanning Colorimetric studies revealed no interaction between more in and excipients. Transmission electron microscopy and atomic force microscopy revealed that the NPs were spherical in shape with approximately 100 nm diameter. Optimized NPs showed excellent in vitro free radical scavenging activity. Skin permeation and deposition of more in from its NPs was higher than its plain form. Different sunscreen creams (SC1–SC8) were formulated by incorporating more in NPs along with nato, zinc oxide and nano titanium dioxide. SC5 and SC8 creams showed excellent sun protection factor values (≈40).

In vitro and in vivo skin permeation studies of sunscreen creams containing morin NPs indicated excellent deposition of more in within the skin. Morin NPs and optimized cream formulations (SC5 and SC8) did not exhibit cytotoxicity in Vero and Ha CaT cells. Optimized sunscreen creams showed excellent dermal safety. SC5 and SC8 creams demonstrated exceptional in vivo antioxidant effect (estimation of Catalase, superoxide dismutase, and glutathione) in UV radiation-exposed rats. The optimized sunscreen creams confirmed outstanding UV radiation protection as well as antioxidant properties.

Yamini Shah1,Rajvee Mewadet,al;(2023)

Presently herbal sunscreens are widely used by almost everyone on this planet to prevent from harmful effects of UV radiation from sunlight. Herbals are preferable because of fewer side effects and a better safety profile. This study is about the preparation and Review on herbal sunscreen creams possessing anti-UV radiation effectiveness and anti-inflammatory properties. Creams were prepared from the extract of plant materials, such as Glycyrrhiza glabra and Tinospora cordifolia, Terminalia arjuna respectively. Glycyrrhiza glabra, Tinospora cordiolia and Terminalia arjuna, total polyphenol and flavonoid content. Review on prepared herbal sunscreen creams was performed on parameters such as organoleptic properties, pH, rancidity, spread ability and drug content. The effectiveness of the products was evaluated by measuring Sun Protection Factor (SPF). These products showed good spread ability, consistency, homogeneity, appearance, desired pH, ease of removal and no evidence of phase separate on.Our Review Article on sunscreen creams is considered to be effective sunscreen in healing, softening and rejuvenating the skin.[14]

Rozinaparvin Iqbal Patel 1, *, Aarifa Mustak Patel 2 and Bhavyaben Dharmeshkumar Modi 3 et,al(2014)

Due to the hasty-paced life of today, our life is affected by pollution and harsh synthetic chemicals, hence, nature has rendered us with its everlasting notable ingredients of herbal. The major cause of sunburn is UV rays which leads to precarious skin cancer. Sunscreen is a topical product that absorbs or reflects some of the suns UV radiation on the skin from excessive exposure to UV radiation.

It has the potential to prevent sunburn & reduce the harmful effects of the sun such as premature aging & skin cancer.

The Present research work portrays the formulations & Review on topical photoprotective, containing antioxidant, anti-malignant, wound healing, antifungal, antiaging, moisturizer, anti- inflammatory, anti proliferative activity, and other photo-protective polyphenols. The present research work renders a stable natural photo protective formulation with antioxidant properties, high SPF, and more indispensable homogenous UVA/UVB protection.

Sreelesh Brinda *1, Dhingra Gitika 2and Vaze Varsha 3 et,al: (2017) Sunscreens aid the body's natural defense mechanisms protect again harmful UV radiation from the sun. The present study involves the Review Article on sunscreen cream with herbal activeingredientsandevaluationforitseffectiveness.Naturallyoccurringtraditional substancesaregraduallyreplacingsyntheticcounterpartsduetotheireffectivenessandabsenceofadverseeffects .TheherbaldrugsselectedforthestudywererootsofGlycyrrhiza glabra Linn.(Yashtimadhu), Hemidesmus indicus R.Br. (Anantmul) and heartwood of Santalum album Linn. (Chandana). Creams were prepared with each individual herb and combination of all three herbs with varying concentration of herbal extracts. The evaluation included determination of Sun Protection Factor for all the formulated creams. The SPF was calculated using the 'Spectrophotometric method and then applying the Mansur equation. The results of the study indicated that the 25% combination cream showed maximum sun screening active,

BOTANICALDISCRIPTION

Aloevera

Synonym :- Ghritkumari

Biological Source :-

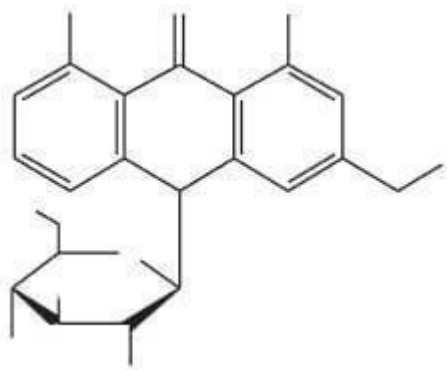
Dried latex obtained from the species Of Aloe Feox.

Family : Liliaceae

Chemical Constituents : aloins, barbaloin, ß-barbaloin and is obarbaloin

„resin, emodin, aloe-emodin.

Fig:-05



Aloin

Uses:

- Protection from the suns UV rays
- It is used in many premium quality sunscreens because it moisturizes the skin.
- To increase collagen production which decrease chances for fine lines and wrinkles.
- Aloe vera gel is full of antioxidants, anti-inflammatory, antiseptic, anti bacterials properties
- Which is helps to relieve eczema, acne, psoriasis and other skin conditions

1) GREEN TEA POWDER:

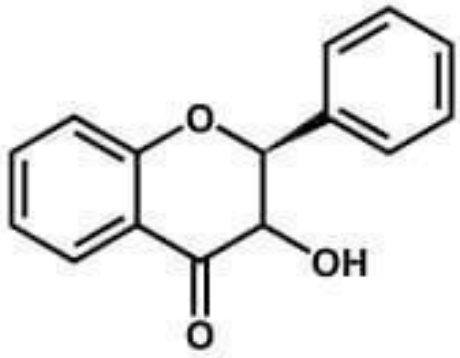
Synonym :- Herbal tea

Biological Source:-

Obtained from the evergreen shrub and small leaves and leaf of the plant Camellia Sinensis

Family : Theaceae

Chemical Constituents : Flavanols, flavandiols, flavonoid,and phenolic acids, caffeine, the ogalline, theobromine, quinic acid.



flavanoid **Fig:-06**

Uses:

- To repair and protect skin from UV damaged.
- To prevent premature aging and fight free radicals.
- It is used as antioxidants that helps in reducing acne and also fights skin infection.
- It also hydrates the skin.
- Control soil.
- Green tea consist of polyphenols which helps in fighting cancer.
- Obtained from the evergreen shrub And small
- Leaves and leaf of the plant Camellia Sinensis.

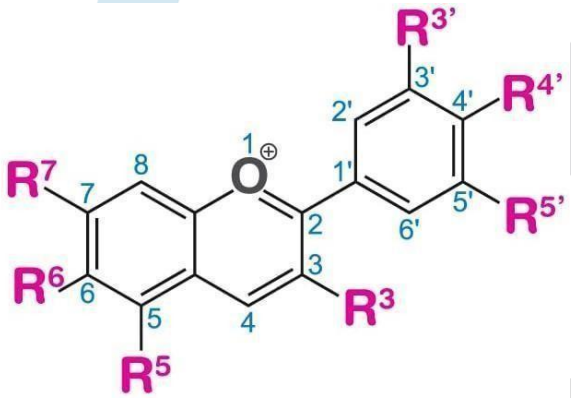
2) GRAPES

Synonym ;-Grapevine

Biological Source :-Vitisvinifera (Europeangrapes)

Family : Vitaceae

Chemical Constituents: Phenolic acids, flavonoids, anthocyanins,stilbenes and lipids,Anthocyanin,resveratrol, catechin, gallic acids.



Anthocyanin **Fig:-07**

Uses:

- Grapes contain polyphenols, goods tuff for repairing skin and Fighting inflammation.
- To protect against UV skin damage caused by sun.
- Grapes can helps to revitalize your skin.
- To protect your skin from cancer causing UV radiation and free radicals.

3) OLIVEOIL

Synonym:-Vegetable oil

Biological Source :-It is the fixed oil expressed from heripe fruis of Olea europoea

Family:- Oleaceae

Chemical Constituents : Palmitic acid , palmitoleic acid, stearicacid, inoleicacid,ά-linolenicacid

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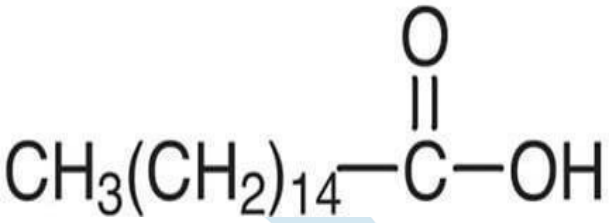
Fig:-08



Palmitic acid

Uses:

- Olive oil may prevent the chemicals from penetrating your
- Skin and providing sun protection.
- It can protect against sun damage.
- Olive oil helps in lightening such dark spots and improving your skin tone. Olive oil removes tan from the skin faster when applied regularly

4) ORANGEPEEL

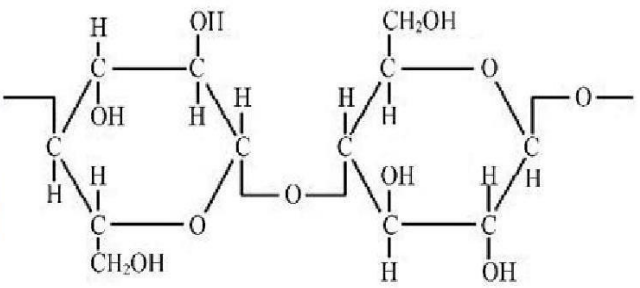
Synonym:-Citrus Sinensis

Biological Source:- fresh or dried outer part of the pericarp of Citrus aurantium Linn

Family :-Rutaceae

Chemical Constituents :-Cellulose, followed by lignin and then hemicelluloses , volatile oils, Flavonoids and terpenoids , limonene

Fig:-09



Cellulose

Uses:-

- It contain vitamin C keeps your skin supple, avoids dullness radiant health vitamin by appearance .
- It helps to lighten and brighten the skin naturally.
- Orange peels are very useful as skincare ingredient for acne-prone skin.
- It helps to remove tan and gives your skin youthful radiance.
- Orange peel use as anti oxidant agent.

5) HONEY

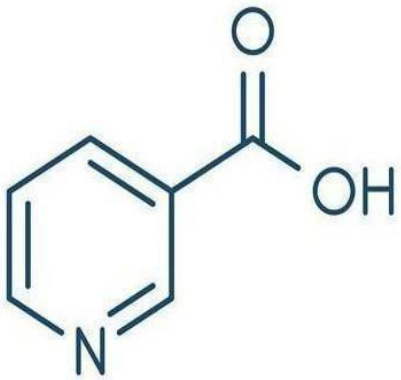
Synonym:-Grapes

Biological Source:-

It is a sugary substances which are obtained from the App is Mellif

Chemical Constituents :-Riboflavin, niacin, folic acid, vitaminB-6. Then it also contain ascorbic acid (vitamin C), fructose, glucose, amino acid , carbohydrates.

Fig:-10



Niacin

Uses:

- Honey is uses a san anti-inflammatory, antioxidants, antibacterial agents.
- To treat burn and promote wound healing.
- Honey is used as sweetening agent.
- Honey deeply moisturizes and hydrates the skin.
- To treats acne and break outs to helps them heal faster.

6) BEESWAX:

Synonym :-Carnauba

Biological source:-Obtained from the honey comb of the bees Apis mellifera and other species of Apis

Family:-Apidae

Chemical Constituents :-Esters, hydrocarbons, fatty acids, small quantity of melissic acid and aromatic substance cerolein, myricyl .

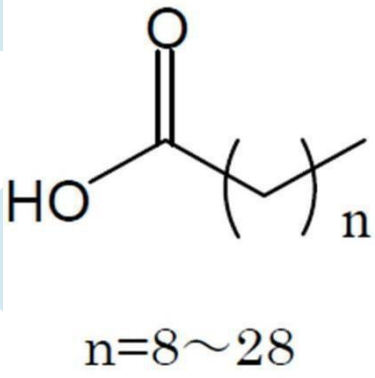


Fig:-11 **Melissicacid**

Uses:

- It used as protective eagent for skin.
- Thickener
- Nourishing agent.
- It contain vitamin A which helps to produce collagen which fights stretch marks.
- Bess wax used to reduces inflammation,

List of Equipment

1) MaterialUsed

Sr.No.	MATERIAL
1	AloeVera
2	GrapesJuice
3	GreenTea
4	OliveOil
5	OrangePeelExtract
6	BeesWax
7	Honey
8	Borax

Table:02

2) Apparatus

Sr. No.	Equipment
1	Glass rod
2	Stirrer
3	Beaker
4	Freeze
5	Measuring cylinder

Table:03

EXPERIMENTAL WORK

FORMULA:-

Sr,No	Ingredient	Quantitygiven	Uses
1	Aloeveragel	10ml	Soothing,moisturizing,antioxidant
2	Greentea	5ml	Antioxidant
3	Grapes	2ml	Photoprotective
4	Oliveoil	4ml	Anti-UV
5	Orangepeelextract	10ml	Anti-Inflamatory
6	Beeswax	10mg	Emolient
7	CornFlour	1.5gm	OilAbsorbent
8	Honey	1.5ml	Moisturizer
9	Liquidparaffin	3.5ml	Emolient
10	Borax	0.2gm	Alkalineagent
11	Methylparaben	0.2ml	Preservative
12	Water	Q.S.	Vehicle

Fig.04

CONCLUSION

- The purpose of this study was to develop herbal Sunscreen Cream. The formulated aloe vera extract, Orange Peel, Tea tree Extract and Grapes juice containing Sunscreen cream was evaluated for several physiochemical tests and The various quality control parameters were checked.
- All parameter gives favorable result. Aloe Vera extract, Orange Peel, Tea tree Extract and Grapes

juice are natural ingredients with considered medicinal values.

- Throughout the study period, the developed formulations shown high consistency, no sign of Phase separation, and good spread-ability.
- There was no evidence of change in the visual appearance, texture, or fragrance of the
- Formulation during the period of study.
- This herbal Sunscreen cream is one of them good alternative sin place of synthetic cream.

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