



A REVIEW ON MULTI-PURPOSE FACE PACK FOR RADIANT SKIN

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ABSTRACT:

Skin health plays a significant role in aesthetics, prompting dermatologists and scientists to continuously explore innovative approaches and materials to pursue this goal. Facial cosmetics are instrumental in maintaining skin moisture levels and controlling sebum production to support optimal skin health. Face masks, comprising creams or thick pastes, are commonly applied for cleansing or smoothing the skin. Typically enriched with minerals, vitamins, & extracts, these masks are tailored to different skin types. Natural face masks, often infused with vitamins, aim to sustain skin radiance and glow. Ingredients such as sandalwood powder, turmeric powder, multani mitti, vitamin E, and argan oil are frequently utilized in these formulations. Carefully curated combinations of powders and clays in face masks offer various skincare benefits, including detoxification, lightening, pore unclogging, debris removal, exfoliation, cell regeneration, and addressing blemishes, acne scars, and pigmentation issues. Initial evaluations of formulations have shown promising results, suggesting their potential for human use pending further rigorous testing. This study focuses on developing and accessing a natural ingredient-based face mask for promoting skin radiance.

Index Terms- Natural face Mask, Sandalwood Powder, Turmeric Powder, Multani Mitti, Argan oil, Vitamin E

INTRODUCTION:

Cosmetics encompass various articles intended for application to the human body to cleanse, enhance beauty, promote attractiveness, or alter appearance. In topical drug delivery systems, medications are administered externally for localized effects. These products' active components either remain on the skin's surface or penetrate the epidermal

layers, sometimes reaching the dermis without systemic absorption, thus falling under the topical drug delivery system classification^[1]. Topical formulations come in three main types:

- i) solid (e.g., powders, patches, gauzes, tapes, sticks)
- ii) semisolid (e.g., ointments, creams, pastes, gels)
- iii) liquid (e.g., lotions, serums)^[2].

Facial packs are formulated to enhance skin radiance, contributing to an overall improvement in skin tone. They promote a softer, smoother skin texture and impart a radiant, refreshed appearance.

Facial packs serve as valuable additions to skincare routines, addressing specific concerns such as hydration, oil balance, and pore refinement, while offering a luxurious spa-like experience in the comfort of one's home^[3].

HUMAN SKIN:

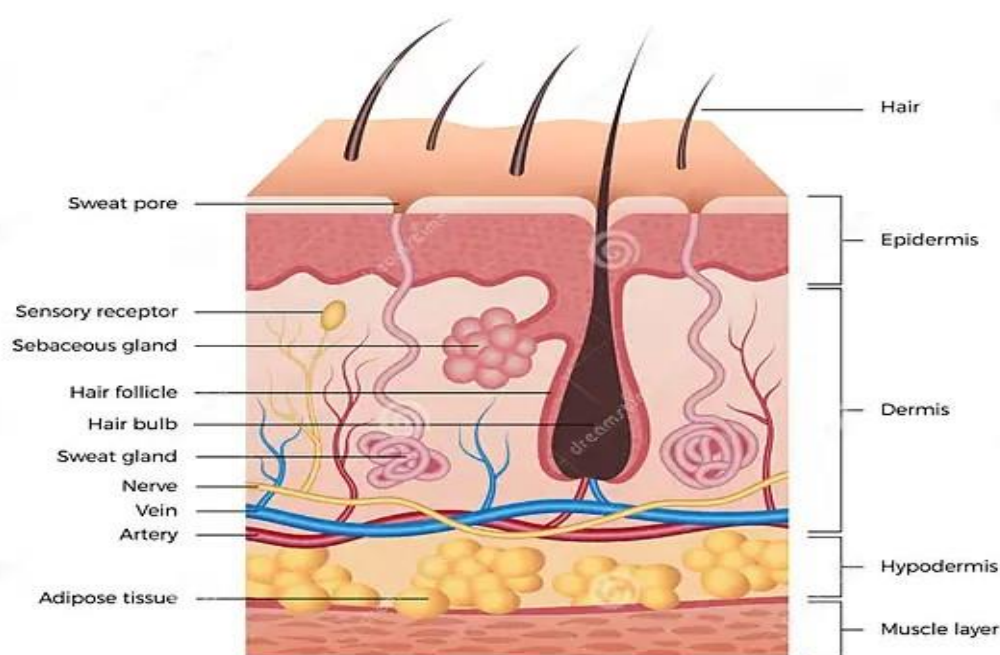


Fig. 1 Human Skin

Skin Layers:

Skin is composed of three primary layers:

The epidermis -which provides waterproofing and serves as a barrier to infection. The dermis-which serves as a location for the appendages of skin. The hypodermis subcutaneous adipose layer. Epidermis is again divided into several layers in which the cells are formed through mitosis process at the innermost layers. They move up to the

stratum corneum changing shape and composition as they differentiate and become filled with keratin. Then They eventually reach to the top layer called stratum corneum. This process is called keratinisation and takes place within weeks. The outermost layer of the epidermis consists of 25 to 30 layers of dead cells.

Epidermis is divided into the following 5 sub layers or strata:

- Stratum corneum.
- Stratum lucidum.
- Stratum granulosum.
- Stratum spinosum.
- Stratum germinativum^[4].

Functions of skin:

- 1) Protection:** The skin serves as a physical barrier between the body's internal and external environments, offering defence against pathogens and injury. Within the skin, Langerhans cells play a role in the adaptive immune system.
- 2) Sensation:** Various nerve endings within the skin respond to stimuli such as heat, cold, touch, pressure, vibration, and tissue damage, allowing for sensory perception.
- 3) Heat regulation:** The skin's abundant blood supply enables precise regulation of heat loss through mechanisms like radiation, convection, and conduction. Vasodilation increases blood flow and heat dissipation, while vasoconstriction conserves heat by reducing cutaneous blood flow.
- 4) Control of evaporation:** Acting as a relatively dry and semi-permeable barrier, the skin helps regulate fluid loss. Impaired function in this regard can lead to significant fluid loss, particularly in burn injuries.
- 5) Aesthetics and communication:** Our skin is visible to others, allowing them to gauge our emotional state, physical condition, and attractiveness.

6) Storage and synthesis: The skin serves as a repository for lipids and water and also facilitates the synthesis of vitamin D when exposed to ultraviolet radiation.

7) Water resistance: By acting as a barrier, the skin prevents essential nutrients from being washed out of the body, contributing to overall water resistance^[5].

Face Pack:



A cosmetic face pack refers to a topical skincare product usually available in paste or gel form applied onto the face. These packs are typically enriched with a blend of ingredients such as clay, herbs, vitamins, minerals, and other compounds aimed at enhancing skin health and appearance. They are favoured for their ability to cleanse, exfoliate, moisturize, and nourish the skin, depending on their specific formulation. Common variations include clay masks for deep cleansing, hydrating

masks for moisture replenishment, and brightening masks for complexion enhancement. Proper usage instructions and consideration of individual skin types and sensitivities are essential when using face packs to maximize their benefits, which include promoting fairness and smoothness. Utilizing herbal face packs according to one's skin type is crucial for achieving optimal results. Face packs are uncomplicated and straightforward to use, aiding in skincare maintenance and improving blood circulation within facial veins. Although the effects of facial packs are typically temporary, using them consistently, 2-3 times weekly, can help maintain a regular glow. Known as "mukha lepana" in Ayurveda, applying these herbal mixtures onto the face is a popular beauty therapy known as a facial. An effective face pack should deliver necessary nutrients to the skin by penetrating the subcutaneous tissues. Ayurvedic face packs address various skin concerns such as wrinkles, dark circles, pimples, and acne while enhancing fairness and smoothness. These natural formulations contain essential vitamins vital for skin health and radiance^[6].

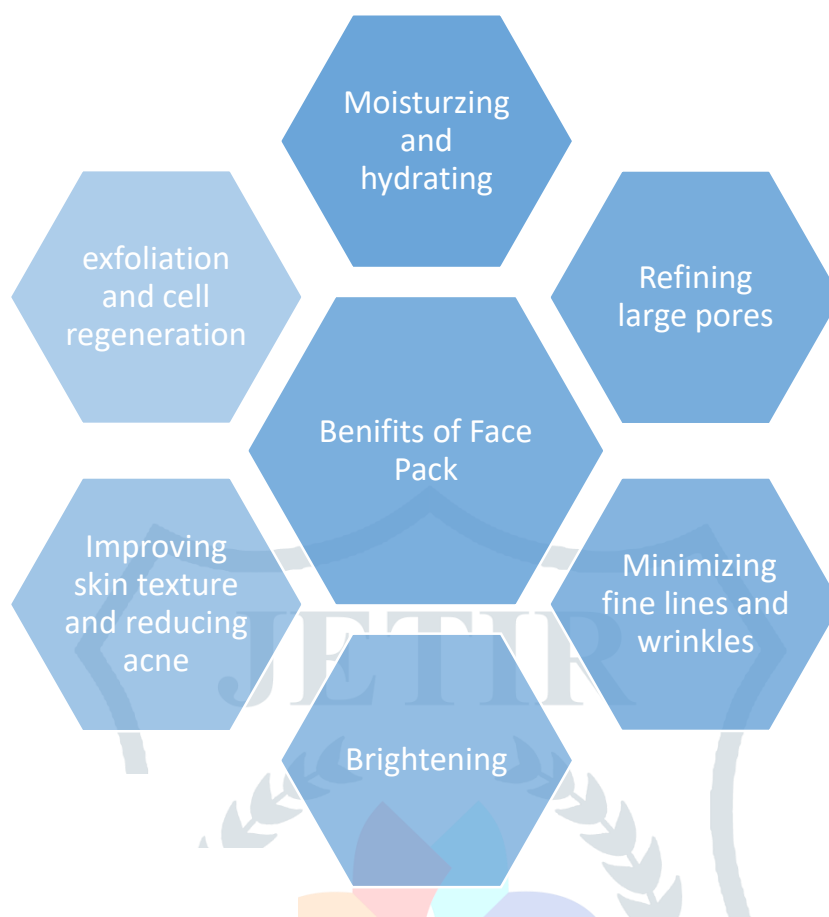


Fig. 2 Face pack

Benefits of Face Pack:

LITERATURE REVIEW:

Sr no.	Title	Abstract	Authors	Year
1	Formulation and evaluation of cosmetic herbal face pack for glowing skin.	The objective of this work is to formulate and evaluate a cosmetic herbal face pack for glowing skin by using natural ingredients. With the varying concentrations, four different formulations containing ingredients such as Multani mitti, turmeric, aloe vera, sandalwood, orange peel, neem, and nutmeg.	Sachin B. Somwanshi, Kiran S. Kudale, Ramdas T. Dolas, Kiran B. Kotade.	Sachin B. Somwanshi et al / Int. J. Res. Ayurveda Pharm. 8 (Suppl 3), 2017 ^[7]

2	A review on herbal face pack.	The purpose of this work is to create and test an herbal face mask for shiny skin using natural ingredients. The Natural Face Pack contains some of the vitamins needed to keep our skin healthy and radiant. Ayurvedic facial pockets help keep wrinkles, acne, acne and dark circles. They also make the skin smoother and smoother.	Amit A. Shimpi, Arvind S. Pawara	2 2 4 3 146-150 ^[8] .
3	Review on Herbal Face Pack.	The objective of this work is to make a review on an herbal face pack. acne dull skin, and uneven skin tone can be treated by using herbal ingredients. The ingredient has been reported in this research paper as having good anti-inflammatory, anti-oxidants, and anti-microbial activity.	Gangurde Rajeshwari R, Bhangale Charushila J	International Journal of Research Publication and Reviews, Vol 4, no 4, pp 147-151 April 2023 ^[9] .
4	Formulation and evaluation of herbal face pack for glowing skin.	The aim of this work is to formulate and evaluate an herbal face pack for glowing skin by using natural herbal ingredients. The natural herbal ingredients such as multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel were purchased from local market in the form of dried powder.	Avinash O. Maske, Manisha Pandhare, Ashwin D. Wanjari	Avinash O. Maske et al / International Journal of Advances in Pharmaceutics 2019; 08(01): e5184 ^[10] .
5	Formulation and Evaluation of Herbal face Pack.	The main objective of this article is to formulate and evaluate an effective herbal face pack for glowing skin by using natural ingredients. The main purpose of Herbal face packs are to remove the dark circle, Pimples, Scars, through the increase blood circulation and maintained it and the rejuvenates the skin and remove dirt particles from the skin pores.	Ravi Kumar, Komal	2 1 1 1 1 9-12 ^[11] .

6	DIY Face pack For Glowing Skin- Formulation and Evaluation.	The objective of this work is to formulate and evaluate herbal face pack for all type skin by using natural ingredients with the varying concentrations. Due to recent craze of DIY (Do it Yourself) the formulation was selected based on recent trends used for beautification of skin and considering traditional methods used to treat various skin issues related to face	Manisha G Suryavanshi, Dipali R Warghane, Harshali S Waze, Nikita B Wasnik	2023 IJCSPUB Volume 13, Issue 3 September 2023 ISSN: 2250-1770 [12].
7	Formulation and Evaluation of Polyherbal Face Pack.	Various skin problems such as wrinkles, pimples, acne, and dark circles can all be reduced with the use of herbal face packs. Additionally, they are helpful in improving the fairness and smoothness of the skin. The face packs from natural origin do contain some important ingredients such as vitamins, which are beneficial for skin's health. They act on skin by increasing blood circulation within the veins of the face.	Sanket A. Avhad, Amol A. Dixit, Shweta S. Bhakare, Jayashri K. Akiwate, Digvijay U. Aswale, Rahul V. Anbhule	Journal of Drug Delivery & Therapeutics. 2022; 12(5):153-155 [13].
8	Formulation and evaluation of herbal face pack for glowing skin.	The aim of this work is to formulate and evaluate an herbal face pack for glowing skin by using natural herbal ingredients. The natural herbal ingredients such as multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel was purchased from local market in the form of dried powder.	Shingane pooja vyankati, Sul sukanya ajinath, Dr. Santosh Jain, Chavan Ramkrishna shesherao	2023 IJCRT Volume 11, Issue 6 June 2023 ISSN: 2320-2882 [14].
9	A short review on	The main objective of the present study was to prepare polyherbal face pack. Nowadays cosmetic	Madhuri D. More, Rohit	Volume:05/Issue:05/ May-2023 [15].

	skin glowing face pack.	have become an important part in the day-to-day life for both men & women to lead a happy & confident life. Keeping in the mind that the cosmetic should be free from synthetic chemicals/Drug, so we came on conclusion to prepare & evaluate a polyherbal facial pack to prevent Acne, Scars, Tanning, Wrinkles, Aging, and Redness.	Nagrle, Ankur Morankar, Bhushan Pagare	
10	Formulation and evaluation of poly-herbal face pack	Skin health is an important aspect of aesthetics. Dermatologists and scientists try to develop novel methods and materials to fulfil this aim. Facial cosmetics keep skin moist and remove sebum from the skin to maintain proper skin health. Therefore, the prime objective of this work is to formulate and evaluate a poly-herbal face pack by using natural ingredients used to fuel blood circulation.	Aishwarya Jain, Sharvil Patil	Manuscript No: AMJR2022003764 [16].
11	preparation and evaluation of herbal anti-acne face pack	Herbal formulations have a growing demand in the world market. The present work deals with the development and evaluation of the herbal anti-acne face pack containing dried powder of neem leaves (<i>Azadirachta indica</i>), the fruits of nutmeg (<i>Myristica fragrance</i>), papaya (<i>Carica papaya</i>), turmeric (<i>Curcuma amada</i>), Masoor Dal (Red Lentil), Gram Flour (<i>Fabaceae</i>).	Rokade Priya, Khadke Anand and Devale Rasika	Volume 6, Issue 6, 1000-1010, year- 2017 [17].
12	Formulation and Evaluation	Facial skin can be protected by using various cosmetics designed for facial applications. It can be a face cream, lotion mask or clay mask, etc. These	Swati Siddheshwar Londhe, Amol Arun Joshi,	Int. J. Pharm. Investigation, 2022; 12(1): 437-440 [18].

	of Clay Face Pack.	gels have also been used in various dermatological preparations, such as benzoyl peroxide acne masks.	Geeta Narsingrao Sapkale, Mangesh Gautam Bhosale	
13	Formulation and evaluation of polyherbal face pack	The aim of this work is to formulate and evaluate an herbal face pack for glowing skin by using natural herbal ingredients. The natural herbal ingredients such as Gram Flour, Rice flour, charcoal powder, Arjuna Powder, Lemon peel Powder, Nutmeg, Manjishta, saffron, Turmeric, Aloe Vera were purchased from local market in the form of dried powder.	Swati Siddheshwar Londhe, Mangesh Gautam Bhosale and Amol Arun Joshi	wjpmr, 2020,6(7), 159-165 ^[19] .

INGREDIENTS: 1. Dead Sea Mud: The Dead Sea, situated on the border of Israel, Palestine, and Jordan, is an extraordinary saltwater lake. It holds the distinction of being the lowest point on the continent and ranks among the three most saline lakes globally, boasting a salinity of approximately 300%⁵. Dead Sea mud, found in the Dead Sea, is a remarkable type of mud with unique properties. Dead Sea mud is rich in various essential minerals, including Magnesium, Calcium and Potassium. It provides various skin benefits such as skin moisturization, Anti-Inflammation, Skin Barrier Repair, Anti-Pollution, and anti-aging^[20].



ig. 3 Dead Sea Mud

2. Multani mitti: Multani Mitti, commonly known as “Fuller’s earth” is a nature’s gift for skin and hair. It is white to yellowish in colour, odourless and tasteless. It provides cooling effect, absorbs excess oil, dirt, impurities from skin. It is a natural solution for acne, scars, oily and dull skin. Fuller's earth may be used in skin care products including facial clays and masks that are claimed to reduce wrinkles and acne. it's also used in cosmetics to bind other substances, prevent other powders from caking together, give mild exfoliation, and stabilise products^[21].



Fig. 4 Multani Mitti

3. Sandalwood powder:

Nomenclature:

Kingdom: Plantae

Phylum: Angiosperms

Class: Eudicots

Order: Santalales

Family: Santalaceae

Genus: Santalum

Species: santalum album

Sandalwood is a class of woods from trees in the genus *Santalum*. The woods are heavy, yellow, and fine-grained, and, unlike many other aromatic woods, they retain their fragrance for decades. Its benefits include preventing and curing pimples, removing sun tan, reducing wrinkles and signs of aging, healing dry skin, enhancing skin brightness, exfoliating the skin ^[22]



Fig. 5 Sandalwood Powder

4. Wild Turmeric:

Kingdom: Plantae

Phylum: Angiosperms

Class: Monocots

Subclass: Commelinids

Order: Zingiberales

Family: Zingiberaceae

Genus: Curcuma

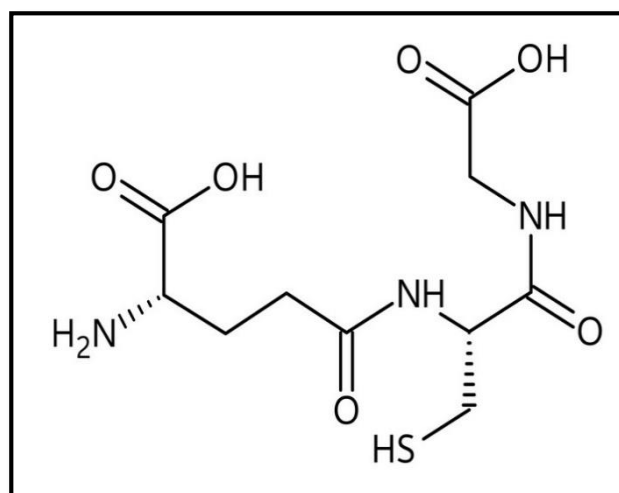
Species: *Curcuma aromatica*

Wild turmeric contains antioxidants, anti-inflammatory, and antimicrobial properties. These characteristics may provide glow and lustre to the skin. It may also revive your skin by bringing out its natural glow [23].



Fig. 6 Wild Turmeric

5. Glutathione: Glutathione is a tripeptide, composed of three amino acids: glutamate, cysteine, and glycine. The gamma peptide linkage between the carboxyl group of the glutamate side chain and cysteine gives it stability. The carboxyl group of the cysteine residue is attached to glycine via a normal peptide linkage. Glutathione is an antioxidant that scavenges up free radicals that destroy our collagen, bodies, and DNA is anti-inflammatory.



Promising preliminary research has demonstrated that glutathione can help eczema, psoriasis, brightening and discoloration, anti-aging, and skin health ^[24].



Fig. 7 Glutathione

Fig. 8 Chemical structure of glutathione

6. Argan essential oil:

Genus: *Sideroxylon*

Family: *Sapotaceae*

Argan oil, derived from the kernels of the argan tree (*Argania spinosa L.*), is a precious plant oil native to Morocco and southwestern Algeria. Face creams, lip glosses, shampoos, moisturizers, and soaps often contain this nourishing oil. It provides many skin benefits such as moisturization, anti-aging, acne control, scar healing, eczema, and psoriasis relief ^[25].



Fig. 9 Argan essential oil

7. Bees wax: Beeswax (also known as *cera alba*) is a natural wax produced by honey bees of the genus *Apis*. It provides various skin benefits such as moisturizing and softening properties, antioxidant protection, anti-aging benefits, analgesic properties, antibacterial effects, anti-inflammatory action ^[26].

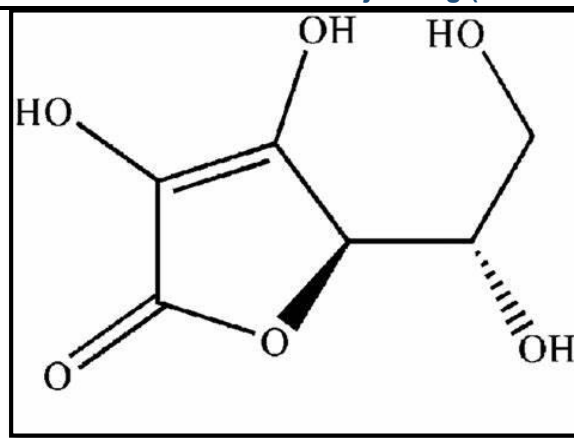


Fig. 10 Beeswax

8. Ascorbic acid: Vitamin C, scientifically known as ascorbic acid, is a powerful antioxidant that should be a staple in your skincare routine. Its remarkable benefits for your skin are boosts collagen production, reduces hyperpigmentation, anti-aging effects, protects against sun damage, promotes wound healing, hydrates skin, reduces redness^[27].



Fig. 11 Ascorbic acid

Fig. 12 Chemical structure of ascorbic acid

9. Vitamin E: Vitamin E is a group of eight fat-soluble compounds that includes four tocopherols and four tocotrienols. Vitamin E is an antioxidant that can help fight free radicals, reduce inflammation, sun protection, anti-aging and moisturize the skin^[28].

10. Shea butter: Shea butter is a versatile natural ingredient extracted from the nuts of the shea tree. Its rich composition of vitamins and fatty acids makes it a popular choice in skincare products. It has numerous skin benefits such as moisturizing, anti-inflammatory properties, and anti-oxidant boost ^[29].

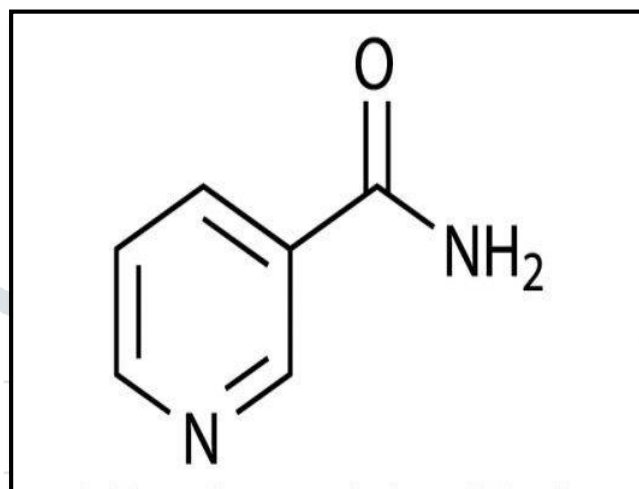


Fig. 14 Shea Butter

11. Niacinamide: Niacinamide is a type of vitamin B-3 that can help prevent B-3 deficiency and treat acne and eczema. Its functions include antioxidant activity, regulates sebum production, improves skin barrier function, reduces redness and inflammation, minimizes pore appearance, brightens and evens skin tone, boosts collagen production, antioxidant protection ^[30].

12. Tea tree oil: Tea tree oil, also known as melaleuca oil, is an essential oil derived from the leaves of the tea tree (*Melaleuca alternifolia*). Mainly used for treating acne, antimicrobial activity, anti-inflammatory activity^[31].



Fig. 17 Tea tree oil

CONCLUSION:

The study formulated a cosmetic semi-synthetic face pack using natural ingredients such as Multani mitti, sandalwood powder, dead sea mud, wild turmeric, glutathione, ascorbic acid, etc. Facial cosmetics are instrumental in maintaining skin moisture levels and controlling sebum production to support optimal skin health. Face masks, comprising creams or thick pastes, are commonly applied for cleansing or smoothing the skin. face masks offer various skincare benefits, including detoxification, lightening, pore unclogging, debris removal, exfoliation, cell regeneration, and addressing blemishes, acne scars, and pigmentation issues. Therefore, it is considered safe for humans as a cosmetic product. The semi-synthetic face pack proves to be effective, safe, sustainable, and reasonably priced; it could be a viable option for those seeking to enhance their skin radiance.

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