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# TITLE: USE OF NATURAL INGREDIENTS FOR COSMETIC FORMULATIONS:

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## **INTRODUCTION:**

Cosmetic industry is the fastest growing industry in the past decade. Many of the cosmetic products applied on daily basis are assured for enhancing our personal hygiene and appearance but it contains a wide range of chemicals which can cause long term side effects. The cosmetic sector is now interested in finding novel alternatives by use of plants & herbs which can enhance the product attributes as well as it can substitute chemical compounds. The current cosmetic market demands for a return to natural products which are less harmful to both consumers and environment. Sustainability is nowadays used by most of the industries and is responsible for change in behaviour of consumers leading to the development of ecofriendly raw materials & products to ensure adequate resources for future generations.[1] 1.CHEMICAL FREE NATURAL SHAMPOO

Today shampoos occupies a very important and prominent place. Earlier soap cakes were used for washing hair. A good shampoo should remove dirt leaving the hair soft,stronger and lustrous.Chemical free shampoo are in great demand due to increasing awareness and they makethe hair safe,healthy and strong[2].A shampoo is considered chemical free or natural when it issulphate free and includes organic and plant based ingredients which are generally mild and maintain the scalp's natural pH and oil balance.Nowadays after dying or receiving keratin treatment of your hair salons recommend sulphate free shampoo to condition the hair & maintain the style.

FORMULATION OF CHEMICAL FREE NATURAL SHAMPOO:

50 gm of Reetha

100 gm of Shikakai

100 gm of Amla

Pieces of fresh coconut

**Tulsi** Leaves

Soak Reetha, Amla in water overnight. Boil Reetha, Amla, Shikakai and coconut pieces along with some tulsi leaves in a pressure cooker for 3-4 whistles. After cooling make a pulp and filter. Store the filterate in a bottle & refrigerate.

Amla is used to make the hair strong and black,Reetha is used to clean the hair,Shikakaiis a superior cleanser for long lustrous hair &prevents dandruff. Tulsi leaves makes the hair health

2.NATURAL CLEANSING GEL FOR MAKE UP REMOVAL:

A cleanser is a facial care product used to remove dirt, dead cells, make up and other types of harmful pollutants from the skin of face. Excessive use of chemicals in cleansers remove the natural oils of skin and can irritate and overdry the skin.Make up removal before sleeping is

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an important tip one should strictly follow and the use of natural cleansers are safe and gives glow to our face.

FORMULATION OF NATURAL CLEANSING GEL FOR MAKE UP REMOVAL:

Formulation 1:

1 cup rose water

<sup>1</sup>/<sub>4</sub> cup Aloe vera gel

1 tablespoon glycerin 1 table spoon coconut oil

Mix all the ingredients at room temperature till a smooth gel is obtained. Store it in a bottle and use when required.

USAGE: For using the gel,take a small amount of cleanser gel in your palm and massage over the face in circular motion with your fingertips until all the makeup dislodges. Hold with a warm wash cloth over the face to open the skin pores. Rinse with water and pat dry.

Coconut oil is a unique combination of natural fats including linoleic acid (which helps to fight acne) and lauric acid (which is antimicrobial and hydrating).Coconut oil has the ability to break down water resistant substances used in makeup and releasing them surface of skin.Glycerin is naturally emollient,has a cooling effect and works as a humectant to give moisture to the skin.

Formulation 2:

Raw milk can also act as a natural gentle make up remover as lactic acid present in milk exfoliates the skin and presence of fats provide the appropriate moisturization.

## 3.MOISTURIZING NATURAL FAIRNESS CREAM:

Everyone dreams to have a healthy, fair and glowing skin. The natural fairness cream is superior than the chemical based cream leaving the skin flawless & fair. The natural cream quickly penetrates the skin giving a nourishing, relaxing and soothing effect on the face.

FORMULATION OF MOISTURIZING NATURAL FAIRNESS CREAM:

Amul fresh cream 4 spoons

Rose water 1 tablespoon

Glycerin 1 tablespoon

Almond Oil <sup>1</sup>/<sub>2</sub> tablespoon

Pinch of Saffron (Kesar)

Vitamin E Capsule

Mix all the ingredients into a smooth paste and transfer it to an airtight jar.Store it in refrigerator.

Rose water soothes the skin and improves its tone It acts as a mild astringent. Saffron saturates the skin to give its natural golden glow.Almond oil is rich in Vitamin E and prevents sun damage that darkens the skin.Aloe Vera tightens the skin by removing the top layer andthe cooling agents in it relaxes your skin and fastens the process of regenerating dead skin cells and damaged tissues.

4.SKIN WHITENING & ANTI AGEING FAIRNESS CREAM:

Over the time the skin looses its glow, appears dull and wrinkled. Taking good care of skin from right age delays various signs of aging and restores the skin radiance thus minimizing wrinkles and dark spots.

1 Tablespoon papaya gel

1tablespoon aloevera gel

<sup>1</sup>/<sub>2</sub> tablespoon glycerin

1 vitamin E capsule

Rose water

Few drops of orange essential oil

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Mix all the ingredients into a smooth paste and transfer it to an airtight jar. Store it in refrigerator.

Papaya contains an active enzyme called papain that is an excellent source of antioxidants and vitaminsA,C,E,K which removes the skin dead cells & rejuvenates the skin.Additionally it contains skin lightening properties and helps in anti maturing giving skinhydration. Rose water is essentially beneficial for oily and sensitive skin as it has strong antibacterial & astringent properties. Vitamin C &E help to protect the skin from damaging effects of free radicals. Aloe vera moisturizes the skin giving it a fresh look all the time.Orange is good source of Vitamin C,Calcium,Potassium and Magnesium.It has an instant glow property preventing acne,wrinkles and aging.

5.LIP BALM

To make the lips attractive lipsticks are used by imparting color .Lustrous lipsticks contain harmful ingredients like paraben,triclosan and sodium lauryl sulfate.Continuous use of lipsticks can make the lips dry and darker.Many people are not comfortable using Vaseline petroleum jelly because of the possibility of toxicity that comes with it using it as a byproduct of petroleum.A simple lip balm that provides extra protection to the lips can be easily prepared from home ingredients to impart color& moisture the lips.

FORMULATION OF HOME MADE PETROEM JELLY:

1cup pieces of candle wax

<sup>1</sup>/<sub>2</sub> cup of olive oil/almond oil/coconut oil

Vitamin E capsule

Melt the pieces of wax in a sauce pan till it melts completely. Now add oil at low flame to combine the ingredients fully. Cool it and allow it to solidify so that it has the same texture of that of Vaseline.Add Vitamin E capsule and pour it a air tight container.

FORMULATION OF BEETROOT LIP BALM:

 $\frac{1}{2}$  cup grated beetroot

1 teaspoon ghee

Strain the juice of graded beetroot with the help of muslin cloth.Mix the melted ghee with beetroot juice and stir well.Allow it to cool and transfer it to a container containing lid.Store it in a refrigerator & apply when required.

The pigments betamin and vulgaxanthin in the beetroot help in brightening of dark pigmented leaves and gives lips a natural reddish pink color.Ghee has nourishing fatty acid which acts as a moisturizer.

Homemade natural lip balm for chapped lips in winter :

1 tablespoon beeswax.

1 tablespoonshea butter.

1 tablespoons coconut oil.

1/4 teaspoon (edible) vitamin E oil.

peppermint essential oil (few drops)

Melt the beeswax, the shea butter and the coconut oil in a sauce pan. Mix well and add vitamin E oil and few drops of the peppermint essential oil. Allow it to cool down and set, test the balm on your lips to see if you feel it is quite minty enough. The balm has a nice ,tingling ,cool taste because of the peppermint and is loved for use by kids.

Beeswax is useful in lip balm as it creates a protective barrier on the lips. Coconut oil is very moisturizing for the skin and provides deep hydration. Shea butter\_has excellent anti-inflammatory and antioxidant properties and helps to retain moisture of the lips. It is

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rich in fatty acids and helps in healing of dry and chapped lips. Vitamin E oil helps in healing the lips.

## 6.NATURAL HAIR DYE :

Due to our lifestyles, diet, stress, hormonal imbalances ,chemical treatment and polluted environment most of the people suffer from hair fall and hair whitening problems .As the hair follicle age they produce less melanin and pigmentation in the hair due to which hair appears grey or white. Chemical hair dyes contain ammonia that severely damages the hair in long run. We can prepare our own hair dye using easily available kitchen items & herbs. This kind of hair dye is not as strong as commercially available dyes.

## FORMULATION OF NATURAL HAIR DYE:

1 teaspoon black seeds or kalonji

1 teaspoon fenugreek seeds

200ml coconut oil

2 tablespoon henna

Grind black seeds and fenugreek seeds into a powder. Heat the oil on low flame and mix the powdered seeds.Add henna powder. Leave it in sunlight for 2-3 days in a container.Keep stirring occasionally.Strain the oil and apply for best results.

Black seeds oil has linoleic acid which prevents hair greying. It also contains omega -3 which helps in increasing blood circulation and hair growth. Fenugreek seeds have high levels of potassium that helps prevent premature greying of hair and retains natural hair colour.

Henna is known as a natural hair dye since ages .It helps to reduce premature greying of hair, because it contains tannins, a plant compound found in teas that contributes to theirrich coloring. Henna also softens the hair as it is rich in Vitamin E.

FORMULATION OF INSTANT HAIR DYE :

1 tablespoon Amla powder

<sup>1</sup>/<sub>2</sub> cup grinded black tea leaves

100 ml mustard oil

Use an iron vessel to mix all the ingredients as iron oxidizes the contents and makes the dye darker. Whisk them to make a paste .Leave it in sunlight for sometime. Apply it on hair and leave for an hour.

Dying hair with tea leaves add temporary richness to your hair color. Polyphenols in black tea forms a complex called tannin that gives a dark temporary color to the hair.Amla is rich in Vitamin C,tannins and minerals such as P,Fe,Ca which provides nutrition to hair and causes darkening.Amla when mixed with oil not only acts as colorant but also moisturizes the scalp giving a healthy ,glossy appearance.Since this natural dye does not contain any chemicals it is much safer & less damaging to the hair.

## 7.EFFECTIVE HAIR GROWTH REMEDY TO STOP HAIR FALL:

Our hair are said to be our crowning glory. Hair loss is nowadays a common problem can can be temporary or permanent. Hair loss can be reversed if an early treatment is given. Besides maintaining a healthy lifestyle one should focus on nourishing the hair with natural ingredients for 100% positive results.[3]

FORMULATION OF HAIR GROWTH REMEDY :

Coriander leaves(100 gms)

Ginger (1 inch)

Olive oil (2 spoons)

Aloe Vera Gel

Grate ginger & extract juice. Grind fresh coriander leaves with little water in a blender to make a semi thick paste. Strain the liquid and mix it to the ginger juice. Add two spoons of olive oil and aloe vera gel and mix all the ingredients well to form a thick paste. Apply this

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paste on your scalp & massage it for 5 minutes and leave it for 1 hour. Shampoo your hair and use it once a week for best result.

Coriander is one of the best natural alternatives to halt baldness and stimulate hair growth as it is an excellent source of vitamins and minerals Fe,Mg,Ca,Na. It also possess antiinflammatory properties and supply nutrients to hair scalp keeping the hair shinning & healthy. Ginger contains essential fatty acids that helps hair to regrow. It improves scalp's blood circulation and boosts hair growth by providing nutrients and oxygen to the hair follicle. Olive oil is rich in antioxidants. It improves blood circulation and nourishes the follicles with essential nutrients and unsaturated fats. It also helps seal moisture in the hair shaft, preventing dryness and making hair more manageable.

## 8.DANDRUFF CONTROL OIL :

Dandruff is a serious problem all the year around .it usually appears as a fine, dry and flaky skin on the scalp.We all have some yeast in our bodies depending on genetics, external and internal factors and the level of yeast rises when there is more oil on the skin.Oiling the hair with natural oils has excellent benefits for dandruff and helps to balance scalps excessive oil production.

FORMULATION OF DANDRUFF CONTROL OIL: 3tablespoon neem oil

### 2tablespoon coconut oil

5 drops each of cedarwood, lavender and rosemary essential oils

Heat coconut oil and neem oil at low flame and cool it to room temperature. Add all the essential oils and pour the oil mix into a jar and store it in a dry, dark place.

USAGE: Massage the oil into the hair with special attention to the scalp. After applying oil wrap your hair in a warm towel for 15 minutes. Leave the oil overnight for best results.

The primary cause of dandruff is fungi known as Candida and Malassezia.Neem oil has antifungal, antiseptic, antiviral and antibacterial properties. The antifungal properties of neem oil makes it effective against these fungi.Coconut oil hydrates the skin preventing dryness and reduces dandruff.Rosemary oil has antifungal, astringent and decongesting qualities to reduce flakes and excessive oils from the skin.Cedarwood essential oil has anti-inflammatory properties that reduces inflammation, itchiness, irritation and redness. Lavender oil has anti-inflammatory bacteria and properties and prevents the growth of bacteria and fungi.

### 9.TALC FREE POWDER:

Consumers are nowadays aware of the carcinogenic side effects of talc and are looking for talc free alternatives to keep their skin soft &dry. Talcum powder can be prepared using food grade ingredients and gives a gentle and soothing effect to the skin.

## FORMULATION OF TALCUM POWDER:

1cup Arrowroot

<sup>1</sup>/<sub>2</sub> cup cornstarch

<sup>1</sup>/<sub>4</sub> cup baking soda used at home

Essential oil few drops

Powder all the ingredients and mix them well.Add few drops of essential oil for fragrance if desired.Pour it in a sealed container.

Arrowroot powder is a natural herb and is extremely light, silky and gentle in texture. Cornstarch is totally natural and have good absorptive properties for both oil and moisture keeping the skin cool and dry. Baking soda is highly versatile and inexpensive kitchen item that soothes the skin, absorbs odour, perspiration and prevents rashes.

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### 10. NATURAL HAND SANITIZER:

Hand sanitizers are handy, prevent the spread of germs and keeps us safe. Homemade natural hand sanitizers are free from strong harmful chemicals and relies completely on essential oils to kill the germs.

FORMULATION OF NATURAL HAND SANITIZER:

1tablespoon rubbing alcohol 200gms of aloe vera gel

Lavender oil

Tea tree oil

Vitamin E oil

Take 5-10 drops of lavender oil and 30 drops of tea tree oil with one tablespoon of rubbing alcohol and mix them well. Add aloe vera gel to the above mixture.Now add few drops of vitamin E oil to preserve the shelf life of sanitizer.Cool it for few hours before using it.

Tea tree oil is ideal in making natural hand sanitizers as it contains number of compounds including terpinene -4-ol which is known to kill bacteria, viruses and fungi. Vitamin E helps to keep the skin of hands healthier and moisturized. Rubbing alcohol is primarily used as topical antiseptic and a natural bactericidal treatment. It is also used for cleaning & disinfectant purposes.

## CONCLUSION:

Natural cosmetics are far better than conventional cosmetics as they do not contain high percentage of petroleum based ingredients such as phthalates,oxybenzones and parabens. They are made up of biodegradable ingredients that are easily absorbed by the skin keeping the skin smooth, nourishing &healthy. Natural cosmetics are safe and an authentic way for the protection of environment and biodiversity. Cosmetic formulations containing natural ingredients are expected to lead the global market for the next few years. REFERENCES :

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