



Preparation of Herbal Shaving Cream

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Abstract

The main objective of the paper is to prepare a herbal shaving cream. This we have used natural herbs and it gave good resultant leaving skin soft and glowing. The details are discussed in the paper.

Keywords: - Herbs, Shaving Cream, Natural, Beeswax, Tulsi.

INTRODUCTION

The word ‘Cosmetic’ derived from a Greek word – ‘kosmesticos’ that means to adorn. From that time any materials used to beautification or promoting appearance is known as cosmetic. The word “cosmetics” actually stem from its use in Ancient Rome. They were typically produced by female slaves known as “cosmetae” which is where the word “cosmetics” stemmed from. The first known people who used cosmetics to enhance their beauty were the Egyptians. Makeup those days was just simple eye colouring or some material for the body⁽¹⁾.

Cosmetic is defined as a substance intended to be poured, sprinkled or introduction or applied to the human body of any part for cleansing, protecting, beautifying, promoting, attractiveness or altering the appearance of human body.

Generally, cosmetics are used as a deodorant, hair shampoos, hair sprays, hair removers, hair dyes, facial cream, skin cleansers, lipsticks & nail polishes.

All cosmetic preparation has their application for long or short periods to beautify the body as well as to keep the body healthy up to some extent and has psychological impact to other. The

“active life” of any cosmetic preparation begins the moment it is brought in contact with the skin/hair/teeth/or nails and ends when it is removed or has evaporated⁽²⁾.

Cosmetics are divided into 2 types: -

- **Natural cosmetics**
- **Artificial cosmetics**

Natural cosmetics: - Natural cosmetics are obtained from plant and animals.

“Natural cosmetics are made from raw materials sourced from nature, such as plants and minerals and from a renewable natural source. The raw materials go through the least amount of processing and cause least impact on humans, animals and the earth.”⁽³⁾.

Artificial cosmetics: - The cosmetics which are prepared synthetically mainly prepared by using chemical are known as artificial cosmetics. Synthetic substance are the compounds which are made artificially through reactions. “The substance which has been formulated or manufactured by chemical processes is called artificial & synthetic cosmetics”⁽⁴⁾.

Artificial cosmetics can be classified into: -

- Skin cosmetics
- Hair cosmetics
- Eye cosmetics
- Nail Cosmetics
- Lips Cosmetics

History

The ancient science of cosmetology is believed to have originated in Egypt and India, but the earliest records of cosmetics and their application date to circa 2500 and 1550 B.C, to the Indus valley civilization⁽⁵⁾. There is evidence of advanced ideas of self-beautification and a large array of various cosmetic usages both by men and women, in ancient India⁽⁶⁾.

Types of cosmetics

- *According to region*
 - Skin: Powder, Lipstick, Rouge, Lotions, etc.
 - Hair: - Shampoo, Conditioners, Bleach, Creams, Colouring preparation, Dye, Hair, Spray etc.

- Nails: Nail paint, Nail Paint Removers, etc.
- Teeth: Powder, Paste, Gel and Dentifrices etc.
- Eye: Eye eyeliner, Mascara, Eyeshadows and Eyebrow Pencil etc.

➤ *According to function*

- Emollient preparation: - cold creams, Vanishing creams Foundation Creams, Lotions and Solutions, etc.
- Cleansing preparation: - Shampoo, Face Wash, Body Wash, Hand Wash, Soaps, etc.
- Decorative preparation: -Lipsticks, Rouges, Eyeliner, Lacquers and Dressing Preparation.
- Deodorant / Antiperspirant: - Spray Sticks and Mouthwashes.
- Protective preparation: - Sunscreen, Creams, Powders.
- Preparation for enjoyment: - Salts. Powders oils and Milk.

➤ *According to composition*

- Powder
- Lotions
- Emulsions
- Solutions
- Suspension
- Cream
- Paste
- Gels
- Aerosol
- Sticks

Properties of Cosmetics

Cosmetics are intended to be applied/ placed in contact with external parts of the human body namely, skin, hairs, nails, lips, teeth, and mucous membranes of the oral cavity. Because these preparations are in contact with the said parts for a considerable duration of time, the following are the desirable characteristics of cosmetics ⁽⁷⁾.

1. Cosmetics should be non-toxic, non-irritant, and acceptable to regulatory agencies.
2. They should be readily applicable and pleasant in use.
3. They should be physically and chemically inert.
4. They should be Economical.
5. They should have long-lasting property.
6. They should have the ability to mask the imperfections of the skin.
7. They should be stable and have a good appearance.
8. They should provide significant cleansing if intended.
9. They should be easily removed from the skin when needed.

Cream

Creams are semi-solid emulsions which contain mixtures of oil and water. Their consistency varies between liquids and solids. Salve (medical ointment for soothing purpose) and unguent (soothing products) preparations in earlier days led to the development of cleansing and cold creams. With the help of additives such as emulsifying agents and newer techniques, the preparation of creams has become easy.

Creams are the topical preparations which can be applied on the skin. Creams are defined as “viscous liquid or semi-solid emulsions of either the oil-in-water or water-in-oil type” dosage forms which consistency varies by oil and water⁽⁸⁾.

Creams may be classified as o/w or w/o type of emulsion on the basis of phases. The term ‘cream’ has been traditionally applied to semisolid formulated as either water-in-oil (e.g.: cold cream) or oil-in-water (e.g.: vanishing cream)⁽⁹⁾.

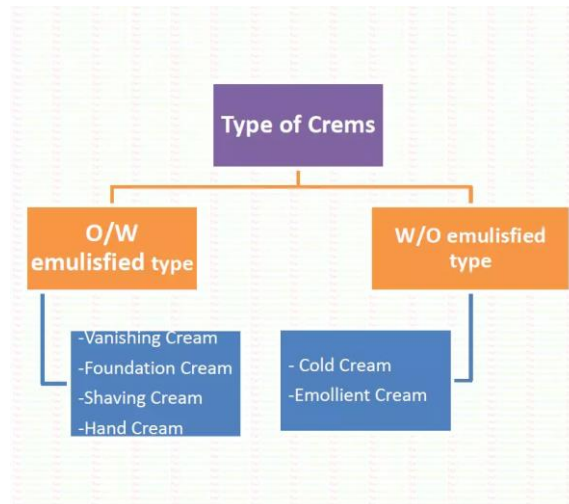
Types of skin creams

They are divided into two types:

- **Oil-in-Water (O/W) creams**
- **Water-in-Oil (W/O) creams**

1) **Oil-in-Water (O/W) creams** are composed of small droplets of oil dispersed in a continuous phase, and an emulsion in which the oil is dispersed as droplets throughout the aqueous phase is termed as oil-in-water (O/W) emulsion.

2) **Water-in-Oil (W/O) creams** are composed of small droplets of water dispersed in a continuous oily phase. When water in the dispersed phase and an oil the dispersion medium, the emulsion is known as water-in-oil (W/O) type⁽¹⁰⁻¹²⁾.



Type of Creams

Classification of creams

The Creams can be classified on basis

1. According to Function, e.g., cleansing, foundation, massage, etc
2. According to Characteristics properties, e.g., cold creams, vanishing creams, etc.
3. According to the nature or type of emulsion

- O/W emulsion type cream

- Vanishing cream
- Foundation Cream

- W/O emulsion cream

- Cleansing cream,
- Cleansing milk,
- Cleansing lotion,
- Cold cream
- Moisturizing cream

○ Winter cream

4. Other creams

- All-purpose cream and general cream.
- Night cream
- Massage cream
- Skin protective cream
- Hand cream

The advantages of cream

- Creams are more acceptable to the patients because they are less greasy and are easier to apply.
- They interfere less with skin functions.
- o/w type of creams (superior to w/o type) can be rubbed onto the skin more readily and are easily removed by washing. w/o can be spread more evenly.
- o/w type of cream are less likely to soil clothes.
- Evaporation of water from o/w type of cream gives a cooling sensation.
- o/w creams absorb the discharges from the wound (liquid exudate) very quickly.
- w/o creams (e.g., cold creams) restricts evaporation from the skin, it can be used on non-weeping surfaces to prevent dehydration (in the dry season), restore suppleness (softness) Body cream

The disadvantages of creams

- Since it is a semisolid preparation and contains oil in large amounts, some of which are inedible, hence creams are not used for internal use. Basically, creams are meant for application onto the skin.
- The aqueous phase is prone to the growth of moulds and bacteria hence preservatives should be used.
- Sometimes rancidification of oils take place.

Herbal Creams:

Herbal creams are used as cosmetics for softening and cleansing action. Face cream is very popular in India and the world. The Ayurveda system of medicine was one of the most important systems that use herbal plants and extracts for the treatment or management of various diseases or disorders ⁽¹³⁾. Examples: Aloe Vera, Tulsi, Neem, Bees Wax.

Composition of Herbal cream.

SN	Ingredients	Roles
1.	Aloe Vera gel	Anti-ageing, anti-inflammatory, moisturizer
2.	Tulsi	Antibacterial, adds glow to the face
3.	Neem	Promote wound healing, and relieves skin dryness, itching, and redness
4.	Beeswax	Emulsifying agent, stabilizer, and gives thickness to the cream

Shaving cream

Post operative wound infection may lead to significant morbidity, patient discomfort and increased cost of surgical care ⁽¹⁵⁾. Hair interferes with exposure of incision, suturing and wound dressing ^(16,17). Hair removal is thought to reduce the risk of surgical site infection ⁽¹⁸⁾. Three methods of hair removal are used; shaving, clipping and chemical depilation. Shaving uses a sharp blade, held within head of a razor, which is drawn over patients' skin to cut hair close to surface of skin may experience microscopic cuts and abrasion. Clippers use fine teeth to cut hair close to patients' skin, leaving short stubble of around 1 millimetre on length. Depilatory cream are chemicals which dissolve hair itself but there is risk of allergic reactions ^(19,20). Hair removal should be carried out by skilled personnel to prevent abrasion injuries ⁽²¹⁾.

Shaving creams which are available in the market contains following harmful ingredients such as: -

- A. **Propylene glycol**, which is humectants like glycerine but unlike glycerine, it's more frequently found in antifreeze and brake fluid.
- B. **Triethanolamine (TEA)** is a skin irritant but many formulas containing TEA are found to be contaminated with nitrosamines which are linked to cancer.
- C. **Sodium lauryl sulphate (SLS)** and sodium laureth sulphate (SLES) are two more controversial skin care ingredients. But they also have a no of health implications.
- D. **Lauryl mimics** estrogen which is especially problematic for woman and laureth often hosts a known carcinogen called dioxane.
- So, I thought of preparing a herbal shaving cream.

MATERIALS AND METHODS

Herbal shaving cream which was made contains the following ingredients-

- **Beeswax**
- **Coconut oil**
- **Aloe vera**
- **Mint**
- **Tulsi**
- **Kesar Saffron (Crocus sativus)**
- **Sandal wood (Santalum album)**
- **Glycerine**
- **Borax (Sodium tetraborate)**
- **Turmeric**
- **Lemon**
- **Sugar**

Beeswax



Beeswax is a product made from the honeycomb of the honeybee and other bees. The mixing of pollen oils into honeycomb wax turns the white wax into a yellow or brown colour.

Yellow and white beeswax are used as thickeners, emulsifiers, and as stiffening agents in preparation of cosmetics. Beeswax absolute is used as a fragrance in soaps and perfumes. White beeswax and beeswax absolute are also used to polish pills.

Uses: ⁽²²⁾.

- Applying a mixture of beeswax, honey, and olive oil to the affected area for 12 hours reduces pain, bleeding, and itching due to anal fissures.
- Used in burns applying a gauze with a mixture of beeswax, olive oil, and alkanna to second-degree burns speeds up healing and shortens the time spent in the hospital.
- A mixture of beeswax, honey, and olive oil to reduces the diaper rash.
- It is helpful in reducing haemorrhoids.
- It reduces the inflammation and sores inside the mouth.
- It is used in curing ringworm, joke itch and fungal infection if applied with honey and olive oil to the affected area.
- It is helpful in treating Diarrhea and hicupps.
- If applied warm on the affected area it reduces pain and inflammation.

Coconut oil



Coconut oil comes from the nut (fruit) of the coconut palm. It contains medium-chain fatty acids, including capric acid, caprylic acid, and lauric acid. It has a moisturizing effect when applied to the skin.

People commonly use coconut oil for eczema and growth in premature infants. It's also used for psoriasis, obesity, breast cancer, heart disease.

Uses: - ⁽²³⁾.

- Applying coconut oil to the skin can reduce eczema symptoms in children more than applying mineral oil.
- Applying coconut oil to the skin of premature infants might improve body temperature, breathing, skin health, and overall growth.

Aloe vera



Aloe vera is used to treat constipation and skin disorders.

Aloe vera juice is a rich source of antioxidants, which help fight free radicals. Which lowers oxidative stress of the body and reduces the risk of chronic conditions such as diabetes, heart disease, and cancer.

Uses: - ⁽²⁴⁾.

- It is used to treat Psoriasis, Seborrhea and Dandruff
- It is used in Minor burns, Skin abrasions and Skin injured by radiation
- It is used to treat Acne.
- It is used to treat Anal fissures and Herpes sores.

Mint



Mint leaves give a cool sensation in the mouth. Toothpaste, mouthwash, breath mints, and chewing gum are all commonly flavored with mint.

In addition to freshening breath, mint adds flavor to foods and drinks – everything from ice cream and tarts to lemonade and cocktails to meat dishes (especially lamb).

There are many varieties of the mint plant, and most fall under the genus mentha. Because mint plants spread quickly, gardeners tend to grow them in containers. When planted directly into the ground, they can become invasive and take over a garden ⁽²⁵⁾.

It is rich in nutrients

- **Fiber**
- **Vitamin A**
- **Iron**
- **Manganese**

- **Folate**

- **Calories**

Uses: -

- It is helpful in Indigestion
- It Improve Brain Function
- It Decrease Breastfeeding Pain
- It Improves Cold Symptoms
- It gives cool sensation to the body ⁽²⁵⁾.

Tulsi



It is a sacred herb contains which is rich in vitamins A, C and K and minerals like calcium, iron, magnesium and potassium. It has a substantial quantity of protein and fibre, both of which are vital for good health. Tulsi leaves are a natural way to treat and prevent a wide range of diseases.

According to an NCBI article titled, “*Tulsi – Ocimum sanctum: A herb for all reasons*”, tulsi is the most significant herb in Ayurveda, and recent studies are now validating its health benefits.

Consumption a tulsi helps to protect organs and tissues from chemical and physical stress caused by extended physical activity, ischemia, physical restraint, and exposure to cold and loud noises ⁽²⁶⁾.

USES: -

- It is used as an antiseptic, antiviral and antibiotic.
- It is used in cough and cold with Kali mirch, ginger juice and honey.
- Face pack prepared from the juice of Tulsi and honey clears the oily skin and improves the skin glow.

- External application of juice of Tulsi, lime Juice eradicates pimples with leaving soft
- It is very useful in chronic fever.
- Keeping a Tulsi plant in the house can prevent all types of insects and mosquitoes, so that Malaria and Dengue etc. can be prevented.
- The holy plant of Tulsi in House gives Riddhi Siddhi, Prosperities and Healthy Wealthy Life (26).

Kesar Saffron (Crocus sativus)



Saffron (*Crocus sativus*) is a plant. The dried thread-like parts of the flower (stigmas) are used to make saffron spice, food colouring, and medicine.

People commonly use saffron for depression, anxiety, Alzheimer disease, menstrual cramps, premenstrual syndrome (PMS), and many other conditions.

Uses: -

- Taking saffron by mouth might improve some symptoms of Alzheimer disease.
- Taking saffron by mouth with or without antidepressant drugs can to improve symptoms of depression (27).

Sandal wood (Santalum album)

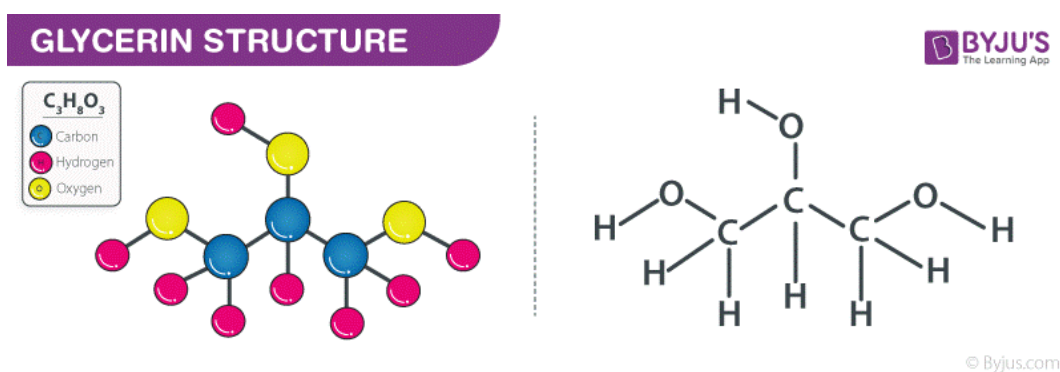


Sandalwood oil has a warm, woody odor and is commonly used as a fragrance in incense, cosmetics, perfumes, and soaps. It is also used as a flavouring agent in food and beverages. The wood has been valued in carving because of its dense character.

Uses: -

- Sandalwood oil is used as an antiseptic and astringent.
- It is used in treatments of headache, stomach-ache, and urinary and genital disorders.
- Paste of sandalwood is used in the treatment of inflammatory and eruptive skin diseases ⁽²⁸⁾.

Glycerine



Glycerine is a simple poly compound. This solvent has a chemical formula $C_3H_8O_3$. It is also known as glycerol or glycerine.

It is hygroscopic in nature. It is found in lipids like triglycerides and is obtained from animal and plant sources. It is water-soluble due to three hydroxyl groups.

It is colourless and viscous. It is non-toxic, odourless and has a sweet taste. It is widely used as a sweetening agent, solvent, pharmaceutical agent or emollient. It is miscible with water.

Uses: -

- Glycerine is used in the food industry as a sweetener and preservative
- It is also used in liquors as a thickening agent
- It is used as low-fat food items
- It is as a lubricant and humectant in medical and pharma industry.

- It is used to treat the increased eye pressure
- It is used in many skin-care products which keeps the skin soft.
- Glycerine is its use in the production of electronic cigarette liquid
- It is used as explosives such as dynamite
- It is used as a fill to damp the vibrations in pressure gauges
- Glycerine is used in film industries to avoid the quick drying of wet areas.

Borax (Sodium tetraborate)



Borax is a powdery white substance, also known as sodium borate, sodium tetraborate, or disodium tetraborate. It's widely used as a household cleaner and a booster for laundry detergent. It's a combination of boron, sodium, and oxygen.

Boric acid is made from the same chemical compound as borax and even looks like it. Boric acid kills insects by targeting their stomachs and nervous systems ⁽²⁹⁾.

Uses: -

The best-known use for borax is as a cleaner.

- It is used in toothpastes and mouthwashes
- It is used in cosmetics such as lotions, skin creams, moisturizers, sunscreen, and acne care products
- It is used in Paint and ceramic glaze
- It is a good Herbicides

Turmeric



General uses: -

- It is used in Skin Whitening
- Treating Acne
- For Glowing Skin
- It is used as Moisturising Dry Skin
- It reducing Stretch Marks
- It is an Antiaging agent

MATERILAS:

The glassware and instruments which are used in the study are given in table -1 below: -

Table-1 List of glassware and instruments.

Glassware's	Instruments
<ul style="list-style-type: none"> ▪ Conical Flask ▪ Funnel ▪ Glass Rod ▪ Petridisc ▪ Spatula ▪ Pippetes ▪ Filter Paper ▪ Test Tube ▪ Beaker 	<ul style="list-style-type: none"> ▪ Analytical Balance ▪ Mixer Grinder ▪ Oven

Collection of samples:

Beeswax was Collected online store. Coconut, aloe vera, Tulsi, Kesar, Sandal wood, Haldi, were collected from General store and from my kitchen garden and Borax, KOH were taken from Chemistry Lab.

Preparation of Extracts:

- Beeswax was melted and added powdered Alum and the contents were stirred and filtered many times. So, that we get pure wax.
- Tulsi (*Ocimum Tenuiflorum*) was taken from plant and after crushing extracts of tulsi was taken.
- Coconut oil was easily available in market

Procedure:

1. First of all, bees wax upto 250g was taken and then filtered with the help of filter paper.

2. After several times of filtering and boiling we get pure wax of 50g.
 3. Then one spoon of coconut oil was added in the filtered wax.
 4. After that one spoon mint, one spoon tulsi, 3-4 fibres of kesar, ½ spoon sandalwood one pinch of haldi, one spoon lemon, sugar was added and mix thoroughly with the help of spatula.
 5. Then added ½ KOH and ½ Boric acid ½ glycerine the whole contents they were put in the mixture grinder for a smooth mixing.
 6. Then it was kept for sometimes, then it was churning in mixture grinder.
 7. To get a smooth silkily paste.
 8. It was kept for some time and it was fill in glass container.
- After that we get bee wax shaving cream is ready to use.

Packaging:

It is free form bacteria and safe for long periods of time.

Storage:

Always keep the container in a cool dry place.

Direction:

Gently rub shaving cream over wet skin to produce a lather prior to shaving.

Precautions:

Avoid contact with eyes. If contact occurs, rinse with cold water immediately

RESULT & DISCUSSION

Herbal Shaving Cream is Very Smooth and it was tested by many persons. They all have given good review of shaving cream.

- It is good smelling
- It is smooth.
- It is easy to apply.
- It is non-irritating.

- It have good foam/lather.
- It is easy to remove with water.
- Since, it is herbal so, no side effects are observed.
- After shaving skin was smooth and these is no need of applying after shave lotion.

The prepared shaving cream was given to three person and I also used it and the results are very economically. It as a good start up at a very low cost.

CONCLUSION

The preparation of the Herbal shaving cream was a very good experience. It was free from side effects and is much cheaper than the shaving cream available in the market.

As a student of M.Sc. (I.C.). I strongly suggest that one can use it as a good start up in very low budget.

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