

FORMULATION AND EVALUATION OF HERBAL HAIR OIL

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ABSTRACT: The concept of beauty and cosmetics is as ancient as mankind and civilization. So they use various beauty products that have herbs to look charming and young. Herbal cosmetics are now-a-days widely used by the common people because of concept of fewer side effects and with a better safety and security profile. The present work was aimed to formulate herbal oil for general purpose (application in hairs) using various herbs. The formulated herbal oil was evaluated and various parameters such as viscosity, saponification value, pH etc. were determined and are reported in this paper.

Keywords: Cosmetics, Herbs, Herbal hair oil, Evaluation

Introduction

Cosmetics are substances used to enhance the appearance or odour of the human body. Cosmetics include skin-care creams, lotions, powders, perfumes, lipsticks, fingernail and toe nail polish, eye and facial makeup, permanent waves, coloured contact lenses, hair colours, hair sprays and gels,

deodorants, baby products, bath oils, bubble baths, bath salts, butters and many other types of products.

MATERIALS AND METHODS

• Phase I

a) Collection of drugs:

For the preparation of herbal hair oil various plant materials were collected through the Neem, Amla, Methi, Curry leaves, Aloe and Tulsi from the Medicinal Plant Garden Osmanabad & local farm of same area.

We have purchased the other required ingredient such as Hibiscus, Ashwagandha and Brahmi from the local market Osmanabad Maharashtra.

b) Weighing of drug:

Weigh accurately 7 gm of following drugs

- Amla
- Neem
- Aloe
- Tulsi

- Curry leaves

- Methi

Weigh accurately 5gm of following

- Hibiscus
- Brahmi
- Ashwagandha

METHOD OF PREPARATION:

➤ Collect the all herbs & weigh accurately such as Amla, Aloe, Neem, Tulsi, Curry leaf, Methi, Hibiscus, Ashwagandha & Brahmi



➤ In about 50ml of coconut oil boil Trigonellafoenum, Aloe , Amla, Neem ,Tulsi & Curry leaf.




➤ In another beaker simultaneously the powder form of Hibiscus, Ashwagandha & Brahmi are boiled in about 50ml of coconut oil.




➤ Cool the both beaker & filter the oil.

➤ Filtered oil is placed in amber colour bottle.

Table 1:-Ingredient used in formulation with its use

Sr.no	Common name, biological source, and family	Part used	Uses	Figure
1	Coconut oil Cocos nucifera, Arecacea	Kernel	Raw material for hair oil and hair tonic, moisturizer	
2	Amla E. officinalis, Euphorbiaceae	Dry fruits	Antioxidant, Scalp reducing agent	

3	Neem A. indica, Meliaceae	Leaves and seeds	<ul style="list-style-type: none"> • Stimulate hair follicle growth and function 	
4	Aloe A. barbadensis	Leaf	Moisturising And Softening of hair	
5	Hibiscus H. rosa-sinensis, Malvaceae	flower	For shiny hair and hair growth	
6	Methi Trigonella foenum graecum Fabaceae	Seeds	Prevent greying ,hair loss, dandruff & promote hair growth	
7	Curry leaves M. koenigii Rutaceae	Leaves	Prevent greying of hair	

8	Ashwagandha Withania somnifera Solanaceae	Root, Leaf, & Seeds	Treat scalp issues such as dandruff , psoriasis& itchiness	
9	Brahmi B. monnieri Plantaginaceae	Whole plant	Repair hair follicles, Hair growth, reduces hair loss	
10	Tulsi	Leaf	Reduce itchiness & dandruff, promotes hair growth	

❖ EVALUATION OF OIL

The formulated herbal hair oil was subjected to physical and biological evaluation.

➤ **Sensitivity test :** The prepared herbal hair oil was applied on 1cm skin of hand and exposed to sunlight for 4-5 min.

➤ **Acid value :-**

• Preparation of 0.1 molar solution:

Weighed 0.56 g KOH pellets and dissolved in 100 mL of distilled water and stirred continuously. The prepared 0.1 molar KOH solution was filled in the burette. Preparation of sample: Measured 10 mL oil and dissolved in 25 mL of ethanol and 25 mL of ether mixture and shaken. Added 1 mL of phenolphthalein solution and titrated with 0.1 molar KOH solution.

➤ **Saponification value :-**

Accurately weighed 1 mL of oil into a 250 mL of conical flask add 10 mL of ethanol : ether mixture (2 : 1) was added. To this flask 25 mL of 0.5 N alcoholic KOH was added. Kept the flask for 30 min. and the flask was cooled. The cooled solution was titrated against 0.5 N HCl using phenolphthalein indicator. Similarly the blank titration was performed without taking oil (sample). Amount of KOH in mg used was calculated.

➤ **pH:** The pH of herbal hair oil was determined using pH meter.

➤ **Viscosity:** The viscosity was determined using Ostwald's viscometer.

➤ **Specific gravity:**

Take the specific gravity bottle, rinsed it with distilled water, dry it in oven for 15 minutes, cool, closed it with cap and weigh it (a). Now fill the same specific gravity bottle with the sample and closed it with cap and again weigh it (b). Determine the weight of sample per millilitre by subtracting the weight (b-a).



Figure: Ostwald Viscometer



Fig3: Acid Value

Table 2: Evaluation paramete

Sr.No	Evaluation Parameter	Observation
1	pH	5.7
2.	Viscosity	0.91
3.	Acid value	1.77
4.	Saponification value	212
5.	Specific gravity	0.92
6.	Sensitivity test	No irritation
7.	Irritation test	No irritation

RESULT AND CONCLUSION:

- The herbal hair oil was prepared from various herbs and their importance in the formulation is presented in Table 1.
- The various parameters like sensitivity test, viscosity, pH, irritation test, grittiness test, saponification value and acid value of herbal

hair oil was evaluated (Table 2). Hence, from the present investigation it was found that the formulated herbal hair oil has optimum standards and further standardization and biological screening establishes the efficacy of formulated herbal hair oil.

- All the values in the evaluation of finished product showed that they are within the acceptable limits. Hence it's concluded that the oil is beneficial for maintaining the healthy hair growth, to reduce dandruff & loss of hair, repair follicles.

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