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Formulation and Evaluation of Herbal Eyeliner

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ABSTRACT

The increasing awareness of potential side effects from synthetic cosmetic ingredients has driven a demand for safe, natural, and effective herbal alternatives. This study aimed to formulate and evaluate a herbal eyeliner (or kajal) utilizing traditional medicinal ingredients to create a product that is both cosmetically appealing and therapeutically beneficial for the eyes. Results demonstrated that the formulated herbal eyeliner possessed excellent physicochemical properties, exhibited good spreadability, and maintained a pH well within the tolerable range for ocular application. Importantly, the product showed no signs of irritation and satisfied the safety criteria regarding microbial growth. The study successfully developed a stable, safe, and high-quality herbal eyeliner. By utilizing natural ingredients with inherent cooling, soothing, and antimicrobial properties, this formulation offers a valuable and health-conscious alternative to conventional synthetic eyeliners.

Keywords :- Herbal Eyeliner, Ayurvedic Preparation, Formulation, Evaluation.

INTRODUCTION :-

Cosmetics have a rich history dating back to ancient civilizations. Egyptians used various substances like copper and lead for makeup around 4000 BCE. In ancient Greece and Rome, cosmetics became popular, but their use declined during the Middle Ages. Renaissance Europe saw a revival, with pale skin and beauty marks in vogue. The 19th century brought mass production and commercialization of cosmetics. The 20th century witnessed significant advancements, with iconic brands emerging. Today, cosmetics play a vital role in personal grooming and self-expression.

In today's dynamic beauty industry, cosmetics encompass a vast array of products designed to cleanse, moisturize, rejuvenate, and embellish the skin, hair, and nails. From skincare routines tailored to individual needs to makeup trends that reflect personal styles, cosmetics offer a canvas for self-care and creativity. Beyond aesthetics, cosmetics also carry cultural significance, symbolizing rituals, traditions, and societal norms. They serve as tools for empowerment, enabling individuals to express their identity, assert their confidence, and experiment with diverse looks. As technology advances, cosmetics continue to innovate, incorporating scientific breakthroughs and sustainable practices to meet the evolving demands of consumers. From cruelty-free formulations to eco-friendly packaging, the industry strives to balance beauty with ethical and environmental considerations.

Materials Used in Herbal Eyeliner

Sr.no	Excipients	Importance
1	Aloe vera gel	Adhesion, base ingredient.
2	Bees wax	Texture and consistency
3	Coconut oil	Moisturize
4	Glycerine	Smooth application
5	Rose water	Natural fragrance
6	Vitamin E capsule	Antioxidant
7	Black soot	Colouring agent

Sr.no	Excipients	Importance
8	Coffee powder	Colouring agent

FORMULATIONS 1

Ingredients used in formulation-1 along with their respective quantities.

Table : Formulation 1

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	3gm
2.	Bees wax	4.7gm
3.	Coconut oil	0.5ml
4.	Glycerine	0.5ml
5.	Rose water	1ml
6.	Vitamin E	Qs
7.	Charcoal	Qs

FORMULATIONS 2

Ingredients used in formulation-2 along with their respective quantities.

Table : Formulation 2

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	2gm
2.	Bees wax	1.7gm
3.	Coconut oil	2ml
4.	Glycerine	2ml
5.	Rose water	2ml
6.	Vitamin E	Qs
7.	Black soot	Qs

FORMULATIONS 3

Ingredients used in formulation-3 along with their respective quantities.

Table : Formulation 3

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	3gm
2.	Bees wax	3gm
3.	Coconut oil	0.7ml
4.	Glycerine	1.5ml
5.	Rose water	1.5ml
6.	Vitamin E	Qs
7.	Black soot	Qs

FORMULATIONS 4

Ingredients used in formulation-4 along with their respective quantities.

Table : Formulation 4

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	5gm
2.	Bees wax	1gm
3.	Coconut oil	0.7ml
4.	Glycerine	1ml
5.	Rose water	2ml
6.	Vitamin E	Qs
7.	Black soot	Qs

FORMULATIONS 5

Ingredients used in formulation-5 along with their respective quantities.

Table : Formulation 5

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	4gm
2.	Bees wax	0.3gm
3.	Coconut oil	0.4ml
4.	Glycerine	1ml
5.	Rose water	4ml
6.	Vitamin E	Qs
7.	Black soot	Qs

Final Formulation**Table : Final Formulation**

Sr.no	Ingredients	Quantity
1.	Aloe vera gel	4gm
2.	Bees wax	0.3gm
3.	Coconut oil	0.4ml
4.	Glycerine	1ml
5.	Rose water	4ml
6.	Vitamin E	Qs
7.	Black soot	Qs

EVALUATIN PARAMETERS OF HERBAL EYELINER**Table : Evaluation of Herbal eyeliner**

S.No	Characterization	F1	F2	F3	F4	F5
1	Colour	Black	Black	Mild black	Black	Black
2	Odour	Characteristic odour	Characteristic odour	Characteristic odour	Characteristic odour	Characteristic odour
3	Texture	Hard	Oily	Greasy	Lump formation	Smooth
4	Consistency	Solid	Liquid	Semi solid	Gel	Good
5	Skin irritation	N0	No	No	No	No
6	pH	6.9-7.4	7-7.5	6-6.6	7.4-7.6	6.9-7
7	Spreadability	Not easily spreadable	More spreadable	Spreadable	Spreadable	Spreadable
8	Stability	Not stable	Less stable	Less stable	Good	Stable

Table : Characterization of Herbal eyeliner (Formulation 5)

Sr no	Characterization	Formulation 5.1	Formulation 5.2
1	Colour	Black	Brown
2	Odour	Characteristic odour	Characteristic odour
3	Texture	Smooth	Smooth
4	Consistency	Good	Good
5	Skin irritation	No	No
6	pH	6.9-7	6.8-7
7	Spreadability	Spreadable	Spreadable
8	Stability	Stable	Stable

1. Physical Characterization

- Visualization of herbal eyeliner by observing colour, odour, texture and consistency.

2. Skin irritation

- No irritation is observed after application of herbal eyeliner on skin.
- N – No reaction.
- R – No redness.
- I - No skin irritation.

3. pH

- The pH of herbal eyeliner is checked by using pH strip. Our herbal eyeliner's pH was near to 7 which can't irritate the eye area.

4. Spreadability

- The Spreadability of eyeliner can be tested by applying the formulated eyeliner on glass slide at room temperature to observe uniformity in the formulation.

5. Stability

- The stability study was performed at a room temperature and at 40C, there are no changes occurs in colour, pH, odour, texture and consistency.

RESULT AND DISCUSSION

The herbal eyeliner was formulated using natural ingredients such as aloe vera gel, bees wax, coconut oil, rose water, glycerine, and natural colouring agents. (black soot, beet root, coffee powder). After several trials we have one final (5th) formulation which was selected among the all trials. It shows that herbal eyeliner performed comparably in terms of application and pigmentation more over it exhibited fewer instances of irritation and allergic

reaction on skin. We have mentioned all the formulation and Characterization trials on the above table after that we have format a result which shows that the F5 formulation meets all the criteria of herbal eyeliner, and it is also suitable for use.

Discussion centred on the potential market demand for natural cosmetic products and the importance of further research to optimize the formulation for enhanced longevity and other properties. Additionally, the study highlighted the need for standardized testing protocols to assess the safety and efficacy of herbal cosmetics.

CONCLUSION

In conclusion, the herbal eyeliner formulation represents a significant advancement in realm of natural cosmetics. through the integration of nourishing like aloe vera gel, coconut oil, glycerine, rose water, and natural pigments like black soot, beet root, coffee powder and antioxidant like vitamin e capsule. It offers a safe and environmental conscious alternative to conventional eyeliners.

Our study has demonstrated that the herbal eyeliner achieves different colouration without using synthetic dyes or harmful chemicals. Moreover, its ease of application and compatibility with sensitive skin type. By using natural ingredients, the herbal eyeliner not only enhances beauty but also promote sustainability and ecofriendly in cosmetic industry.

The herbal eyeliner stains as a testament to the possibility of natural ingredients in creating cost effective, safe, and eco-conscious cosmetic products.

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