

## **Formulation and evaluation of activated charcoal face pack.**

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### **1) INTRODUCTION**

Over the past few year, Activated charcoal has been used as an active ingredient in cosmetic product .Due to its adsorbing properties, It is well being used in all kinds of beauty product from face marks to cleansers and also even soaps .Activated charcoal is used as an active ingredient in this formation.

The cosmetic are the utility product used extensively throughout The world for maintaining and improving general appearances, of face and other part of body example, skin ,eyes, hair head etc. Herbal cosmetic are the preparation which preparation which represent cosmetic associated with active bio ingredient and pharmaceutical. And neutraleutical Peel - off mask have been developed especially for cosmetic treatment which is used in beauty salon Like a plant extract for various cosmetic purpose like neem ,Aloevera ,Orange peel , rose, Chamomile extract, Xantham gum , Turmeric powder , Glycerin , activated charcoal, Bentonite clay .

Activated charcoal has pores that can trap chemicals. It is typically taken by mouth as a treatment for some swallowed poisons. There is little evidence for other uses. Charcoal is made from peat, coal, wood, coconut shell, or petroleum. Activated charcoal is made by heating charcoal in the presence of a gas. This process causes the charcoal to develop lots of internal spaces or pores. These pores help activated charcoal trap chemicals. Skin is a very sensitive and potective layer of the human body which is exposed to environm0ental pollution hence, it is very essential to protect the skin. The facial skin can be protected by applying various cosmetics intended specially for facial application, It can be a cream, lotion face mask or peel off mask etc. Peel off mask is the type of dosage form which is gently applied onto the facial skin surface and is peeled off after few minutes of its application. It is used as the remedy to treat facial skin related problems such as wrinkles, ageing, acne and mainly used to open the closed pores due to deposition of dust. Its main role is to Stimulate the metabolism due to its occlusive effect. Activated charcoal is being added as an active ingredient in this formulation. The most important characteristic of an activated carbon is its adsorbant activity. Using it as an active ingredient in peel off mask, it adds to its value by enhancing the role of peel off mask by absorbing dust particles and opening the clogged pores. Literature survey reveals many papers related to formulation of herbal peel off masks, but no any reported paper was found on Activated Charcoal peel off mask. In this paper, we have formulated Activated Charcoal peel off mask and Evaluated it by using various tests methods.

### **5 ) PLAN OF WORK :-**

- 1) Selection of topic
- 2) Review of literature

- 3) Selection of drug / excipient
- 4) Formulation of charcoal facepack -
  - Aloevera
  - Termuric powder
  - Rice flour
  - Charcoal powder
  - Arjuna powder
  - Kaolin clay
  - Rose water
- 5) Evaluation of charcoal face pack
  - Organoleptic properties
  - Ph
  - Irritancy test
  - Spreadability test - Peel of test

## 6) MATERIAL AND METHODS

### 6.1) EVALUATION organoleptic properties –

We have done the visual inspection of product and observed that it was off :- Color :- black

Order :- scented

State :-

Consistency :-

### 6.2) PH ( POTENTIAL HYDROGEN ) : -

The PH value of this purely herbal peel off mask was determined by using digital PH Meter and PH value of this activated charcoal peel of mask was found to be 5.9

### 6.3) Irritancy test-

The Irritation test was done by applying a formulation on head's back skin and leave it for 15 minutes to check irritation reaction such as swelling , itching and redness effects on the skin .

### 6.4 ) Spreadability test :-

Placed 1 gm Formulation on a butter paper and on the formulation Put watch glass after .that 5 gm weight was placed on Watch glass 2 minutes to compress the sample to uniform thickness and its diameter was measured.

### 6.5) Peel- off test :-

The formulation film of 4×4mm was spread on backside Off the head skin leave it for - 15- 20 minutes To dry properly after 15 -20 minutes Peel off The Dry film from the skin surface. Easy removal of peel without any complication was observed. You can buy many types of charcoal masks online or at your local beauty store or drugstore. But some store-bought masks may contain ingredients and preservatives that don't agree with your skin. Instead of buying a charcoal mask, you can use some simple ingredients to make your own. To get started, you'll need a mixing bowl, measuring spoons, a towel, and the following ingredients: • 2 tsp. water

1 tsp. bentonite clay

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- 1 tsp. activated charcoal powder
- 1/2 tsp. raw honey
- 1 drop essential oil (optional)

Making a charcoal mask can be a bit messy if you're not careful. Because the charcoal powder can get blown around easily, it's best to make the mask in an area away from any drafts or open windows.

You may also want to cover charcoal from staining anything.

To keep the mess to a minimum, consider buying

You can open one capsule and add its contents to the face mask mixture than measuring out a teaspoon Total product obtained by 76 gram.

## **MATERIAL AND METHODS**

surfaces around you with towels to prevent activated charcoal capsules of powder

S. NO.	NAME OF EXCIPIENTS	Quantity
1	Multani mitti	10 gram
2	Termuric	5 gram
3	Aloevera gel	20 ml
4	Charcoal powder	25 gram
5	Rose water	1-5 drops
6	Rice flour	5 gram
7	Arjuna powder	10 gram

Total product obtained by 76 gram.

**CHAMOMILE :-** Chamomile is one of the most ancient medicinal herbs known to mankind. It is a member of Asteraceae/Compositae family and represented by two common varieties viz. German Chamomile (*Chamomilla recutita*) and Roman Chamomile (*Chamaemelum nobile*). The dried flowers of chamomile contain many terpenoids and flavonoids contributing to its medicinal properties. Chamomile preparations are commonly used for

many human ailments such as hay fever, inflammation, muscle spasms, menstrual disorders, insomnia, ulcers, wounds, gastrointestinal disorders, rheumatic pain, and hemorrhoids.



## 8) RESULT :-

### 8.1 ) Physical appearance

S no.	Parameter	Observation
1	<u>Colour</u>	Black <u>colour</u>
2	Odor	Pleasant
3	Appearance	Smooth
4	Texture	Fine
5	smoothness	Smooth
6	Irritancy test	No irritation effect show
7	Peel of test	Peel removed from skin <u>easily</u> without breaking

### 8.2) PH OF CHARCOAL FACE PACK

S no.	FORMULATION CODE	PH
1	F 1	5.9
2	F 2	5.7

STATE OF CHARCOAL FACE PACK

S no.	Parameter	Observation
1	State	Semi solid

SPREADIBILITY TEST OF CHARCOAL FACE PACK

S no.	Parameter	Observation
1	<u>Spreadibility test</u>	Smooth and light to spread

## 12). REFERENCES

- 1) <https://www.healthline.com/health/beauty-skin-care/charcoal-maskbenefits#:~:text=Acne%2Dcausing%20bacteria%20can%20trigger,and%20improving%20overall%20skin%20complexion.>
- 2 ) [https://www.researchgate.net/publication/368883405\\_Formulation\\_and\\_Evaluation\\_of\\_Activated\\_Charcoal\\_Peel\\_Off\\_Mask](https://www.researchgate.net/publication/368883405_Formulation_and_Evaluation_of_Activated_Charcoal_Peel_Off_Mask)
- 3 ) <https://go.drugbank.com/drugs/DB09278>
- 4 ) <https://jpsr.pharmainfo.in/Documents/Volumes/vol15issue02/jpsr15022305.pdf>
- 5 ) [https://en.wikipedia.org/wiki/Aloe\\_vera](https://en.wikipedia.org/wiki/Aloe_vera)
- 6 ) <https://en.wikipedia.org/wiki/Turmeric>
- 7 ) [https://www.researchgate.net/publication/364488430\\_Formulation\\_and\\_Evaluation\\_of\\_Polyherbal\\_Face\\_Pack](https://www.researchgate.net/publication/364488430_Formulation_and_Evaluation_of_Polyherbal_Face_Pack)
- 8 ) <https://www.healthline.com/health/beauty-skin-care/diy-charcoal-mask>
- 9 ) [https://www.researchgate.net/publication/318872267\\_FORMULATION\\_AND\\_EVALUATION\\_OF\\_COSMETIC\\_HERBAL\\_FACE\\_PACK\\_FOR\\_GLOWING\\_SKIN](https://www.researchgate.net/publication/318872267_FORMULATION_AND_EVALUATION_OF_COSMETIC_HERBAL_FACE_PACK_FOR_GLOWING_SKIN)
- 10) <https://elephanttrunk.in/products/charcoal-facepack#:~:text=It%20gives%20a%20smooth%20and%20bright%20appearance%20to%20your%20skin.&text=Activated%20charcoal%20is%20a%20fine,pores%20stay%20healthy%20and%20tight.>
- 11 ) <https://www.healthline.com/health/beauty-skin-care/diy-charcoal-mask>
- 12 ) <https://ijcrt.org/papers/IJCRT2009021.pdf>
- 13 ) <https://mamaearth.in/blog/charcoal-face-maskbenefits#:~:text=Soothes%20and%20brightens%20the%20skin,soothe%20rashes%20and%20insect%20bites.>
- 14 ) <https://www.medicalnewstoday.com/articles/activated-charcoal-benefits-for-skin>
- 15 ) <https://www.auroville.com/body-line-c-57/face-care/activated-charcoal-face-pack.html>
- 16) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763764/#:~:text=The%20botanical%20name%20of%20Aloe,%2C%20pea%2D%20green%20color%20plant.>
- 17) <https://www.ncbi.nlm.nih.gov/books/NBK92752/#:~:text=Turmeric%20is%20a%20product%20of,native%20to%20tropical%20South%20Asia.>
- 18) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220499/#:~:text=Terminalia%20arjuna%2C%20>



0comm only%20known%20as,to%20the%20family%20of%20Combretaceae.

19)[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210003/#:~:text=Chamomile%20\(Matriria%20cham omilla%20L.\),in%20folk%20and%20traditional%20medicine.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210003/#:~:text=Chamomile%20(Matriria%20cham%20omilla%20L.),in%20folk%20and%20traditional%20medicine.)