

FORMULATION OF ACTIVATED CHARCOAL EXFOLIATORS FOR FOOT SCRUB

EXFOLIATORS: Natural Exfoliating agent are used to remove dead cells from the surface of skin and improve blood circulation, giving renewed and glowing skin. It keeps face free from dirt, collected sebaceous secretions also improves the skin appearance Exfoliators removes dull flaky skin, evens skin tone and diminishes the look of fine lines to reveal radiance. Natural exfoliation spheres gently exfoliate and deep clean skin while protecting and nourishing it at the same. Umang Pharmatech manufactures Sprayspheres SE® beads containing natural products specially used for exfoliation.

EXFOLIATION BENEFITS:

- Removal of dead skin cells
- Smoother, firmer skin
- Even-toned complexion
- Refined pores
- Reduces fine wrinkles, hyperpigmentation and scars
- Stimulates blood flow
- Allows for better absorption of moisturizers and serums.

ACTIVATED CHARCOAL:

Activated charcoal is also called as activated carbon is a form of carbon processed to have small, low volume pore that increase the surface area (>1000m²/g) also high porosity. It is composed primarily of aromatic configurations of carbon atoms joined by random cross-linkages. Activated Charcoal has various skin properties that make the one of the best natural ingredients for the skin. Activated charcoal is not harsh for the skin.

INCI NAME:

Charcoal Powder (Activated charcoal Powder)

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance - Free Flowing black colour spheres

Solubility – Practically insoluble in water

Bulk Density - NLT 0.6 gm/cc

pH Value (1.0% Slurry) - 5.0 to 8.0

Loss on drying - NMT 8.0%

KEY PROPERTIES OF ACTIVATED CHARCOAL EXFOLIATORS:

- Does not disappear on gentle rub
- Preservative Free.
- Non GMO
- Provides Soft to mild Exfoliation
- Composition has GRAs status.
- Only approved synthetic & natural colors used
- Provide visual effects
- It is natural, non-toxic, non-comedogenic and non-allergenic properties and also biodegradable.
- Soft but effective abrasive, exfoliates naturally restore skin's beau



EFFECT OF ACTIVATED CHARCOAL EXFOLIATORS IN FOO SCRUB:



Activated charcoal absorbs the impurities and neutralizes the odour. It highly effective exfoliants and remove dead skin It also remove odour due its antibacterial activity. It is a powerful cleanser and also helps to keep feet fresh longer time. Activated Charcoal Nourishes the feet and makes them soft.

DOSAGE: 0.5 % to 2% for visual effect and up to 10 % for colour or active delivery.

STORAGE: Temperature between 5 and 25° C.

FORMULATION PROCEDURE:

Stage 1: Disperse carbopol ETD 2020 and Ultrez 10 polymer in the deionized water, Continue stirring slowly to hydrate for about 20 min.

Stage 2: Partially neutralize the carbopol dispersion with TEA in Part A and mix until smooth.

Stage 3: Add part B to Part A with slow, sweep mixing to avoid foaming.

Stage 4: Pre-combine ingredients in part C and add part C to parts A/B. Mix slowly until homogeneous

Stage 5: Add ingredients in part D to parts A/B/C, in order mixing thoroughly between. Finish by adding remaining TEA to neutralize.

Stage 6: Activated Charcoal exfoliator is added at the end of manufacturing at moderate

temperature and at slow stirring. Shearing or other mechanical stresses should be avoided all manufacturing and filling process.

FORMULATION TIP

Ingredient	Qty (Wt %)
Part A	
1. Deionized water	79.00
2. Carbomer/carbopol Ultrez 10	0.25
3. Acrylates / C10-30 Alkyl Acrylate crosspolymer/Carbopol ETD 2020	0.40
4. Triethanolamine (99%)	0.16
Part B	
1. TEA Lauryl sulfate (40%)/ standapol T	4.00
2. Propylene Glycol	2.50
Part C	
1. Glycerine	2.50
2. Activated Charcoal Exfoliator	0.10
3. Propylene Glycol and water and Matricaria (Chamomilla Recuita) Extract/Actiphyte of Chamomile	0.05
4. Propylene glycol and water and Ivy (Hedera Helix) Extract /Actiphyte of Ivy	0.05
5. Polymethoxy Bicyclic Oxidilidine/Nuosept C	0.20
Part D	
1. Pumice	10.00
2. D&C No.33 (0.1%)	0.35
3. Triethanolamine(99%)	0.44
Activated Charcoal Exfoliators	0.5-2

PARTICLE SIZES OF EXFOLIATOR BEADS

XS = Extra Small = 0.2 mm

VVS = Very Very Small = 0.2 - 0.3 mm

VS = Very Small = 0.3 - 0.6 mm

S = Small = 0.6 - 0.8 mm

M = Medium = 0.8 - 1.4 mm

L = Large = 1.4 - 2.0 mm

XL = Extra Large = 2 - 5 mm

KEY WORDS: Exfoliator Beads, Scrub Beads, Natural Exfoliators, peel off, flake off, shed off.