DIRECT INCORPORATE OF ARGAN OIL VS ENCAPSULATED ARGAN OIL FILMS FOR BATH BOMB AND SOAP FORMULATION

Actifilms™ AF is made up of Hydroxypropyl Methyl Cellulose which is a chemically modified cellulose polymer. HPMC is a water soluble synthetic polymer which was used as film former. It is a thin, flexible sheet of polymer in which an active ingredient has been incorporated. Films are rapidly disintegrate and also have greater stability and shelf life.

BENEFITS OF ARGAN OIL:

- Argan oil treat the acne ,stretch marks. It protect the skin ultra violet light and may help to nourishes the dry skin.
- Argan oil treat the wrinkles, signs of skin aging due to its antioxidant properties also helps to speed up healing, prevent breakouts and support the skin's immune system and it promotes natural moisturizing - which means it helps to hydrate the skin effectively, giving it a radiant glow.

WHY ENCAPSULATED ARGAN OIL ?

Encapsulation Technology used in the development of formulations that more stable, more effective and with improved sensory properties. Encapsulation protect the active ingredient from the unwanted reactions. Argan oil easily degrade and giving the undesired interaction with external surface so it become unstable. To improve the stability and protect sensory properties encapsulation technology use for the Argan Oil.

UNIQUE FUNCTIONS:

- Easy to handle at the industrial scale.
- Disappear on gentle rubbing without leaving any residue on skin use upon application.
- Non toxic and Non irritant ,soluble in water. Available in natural flavors.
- Available in different shapes & color
- Film have more flexibility and better physical properties.

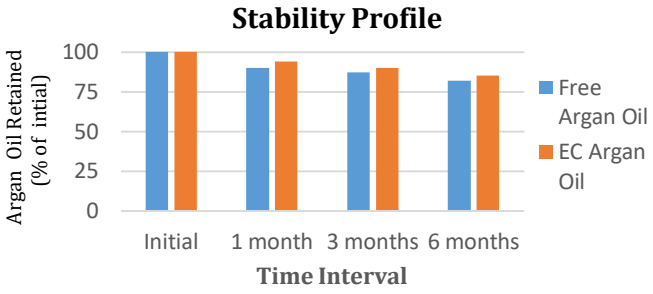
MANUFACTURING PROCESS OF ACTIFILMS™ CONTAINING ARGAN OIL :

The Solution Casting method : It is ideally suited for a water-soluble polymer, “Water soluble” refers to a film which, when exposed to water, begins to dissolve or disintegrate to its smallest components. Film coating is the process whereby active material is surrounded by a thin layer of polymeric material. Film coating method generally involves the steps of continuously pumping a feed of polymer solution with primary component i.e. HPMC. Both HPMC and colour weighed accurately and mixing of all ingredients to achieve homogeneous primary solution and further combining with secondary component

to polymer solution. Secondary components such as active functional or decorative ingredients are finally deposited into the primary solution onto the casting surface for film formation using Umang Pharmatech's UCFC-600 (Solution tank ,Film Casting). The resulting solution is cast as a film and allowed to dry, which are then cut into pieces of the desired size and shape.

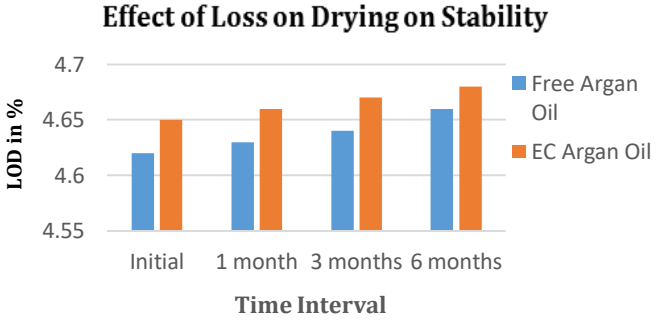
IMPROVED SHELF LIFE STUDY:

The Free Argan oil and Actifilms™ containing Argan oil were kept in an air tight glass bottle and place in Stability Chambers at temperatures of 30˚C ± 2˚C for 180 days, HPLC analysis show that the Actifilms™ containing Argan oil retain 85 % of the Argan oil while the free Argan Oil only retained 82 % .



TEMPERATURE EFFECT ON LOD STABILITY:

The Free Argan Oil and Actifilms™ containing Argan Oil were place in an air tight glass bottles at 30˚C ± 2˚C for 180 days in a stability chamber. The sampling and analysis was done at fixed time intervals for their LOD, to check the moisture loss in the samples. Results mentioned in below graph.



CONCLUSION:

The results obtained from this study show that using encapsulated Argan Oil are more stable and deliver desire amount of dose of Argan Oil and make it an ideal for use in formulation.

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KEY WORDS:

Encapsulated films, Films for special effects ,HPMC films, dissolving Films