

FORMULATION OF ENCAPSULATED MINT OIL FILMS FOR ORAL CARE

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 rapidly disintegrate and also have greater stability and shelf life. Umang Pharmatech manufactures Actifilms™ i.e AF exclusively available in shapes and varieties of colors available for many personal care applications.

MINT OIL:

Peppermint oil is a natural essential oil. Peppermint oil has a fresh, sharp, menthol smell, is clear to pale yellow in color and watery in viscosity. Peppermint oil has a high menthol content, causes cooling sensation. Menthol increases the sensitivity of cutaneous cold receptors. Menthol acts as a topical vasodilator which enhances the absorption into the skin and giving the analgesic effect. The peppermint oil is popular for flavoring agent; it has a strong antimicrobial, antioxidant and antibacterial properties.

TECHNOLOGY

Umang Pharmatech has used the Pharmaceutical's popular technology i.e. Encapsulation and Film Casting Technology to Develop Actifilms™ with incorporation of desirable actives in personal care formulations to obtain better Visual impact, deliver desirable actives ingredients and provide stable films within the formulation.

INCI NAME:

Mentha piperita (Peppermint) Oil

KEY PROPERTIES OF ACTIFILMS™:

- Easy to handle at the industrial scale.
- Disappear on gentle rubbing without leaving any residue on teeth / oral case 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.



EFFECT OF ENCAPSULATED MINT OIL FILMS FOR ORAL CARE:

Its natural anti-inflammatory and anti-bacterial properties help curb the growth of bacteria in the mouth, further preventing infections. It helps prevent the swelling in connective tissues and reduces bleeding too. It acts as an alkaline food that contradicts the effects of the acidic environment that is responsible for gum diseases and tooth decay.

DOSAGE : 0.2 % for visual effect and up to 10 % for colour or active delivery

STORAGE: Temperature between 5° C and 25° C

FORMULATION PROCEDURE :

Stage 1:

Calcium carbonate, hydrated silica, titanium dioxide was weighed and mixed by adding sorbitol to it.

Stage 2:

In a beaker glycerin, Sodium saccharine, Sodium CMC was mixed together and added to Stage 1

Stage 3:

Sodium lauryl sulphate and NaCl was weighed and was mixed using 10ml water and mixed with Stage 1

Stage 4:

Actifilms™ was added at the last stage and mix it very slowly without pressuring the beads very hardly.

FORMULATION TIP	
TOOTHPASTE	
Ingredients	Qty (%w/w)
Calcium carbonate	25
Hydrated silica	10
Sodium lauryl sulphate	2
Sodium chloride	1
Glycerin	10.3
Sorbitol	10
Sodium CMC	0.8
Titanium dioxide	0.1
Sodium Saccharine	0.25
Sodium benzoate	0.08
Actifilms™	0.2
Distilled Water	QS

KEY WORDS:

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



Pumpkin Shape



Snowman Shape