

## FORMULATION OF ENCAPSULATED OLIVE OIL ACTIFILMS FOR BATH BOMB



**Actifilm™:** Actifilms are films made up of Hydroxypropylmethyl cellulose which is a chemically modified cellulose polymer. The dissolving film delivery vehicle is just a thin flexible sheet of polymer in which an active ingredient has been incorporated.

These actifilms magically disappear upon rubbing by delivering dry actives i.e they are visually dry but soften easily when it gets in contact with water, thus they have the amazing properties to soften in the formula making them more malleable and ready to disintegrate when pressure is applied. Umang Pharmatech manufactures **Actifilm™ i.e AF** exclusively available in shapes and varieties of colors available for personal care applications.

### **KEY PROPERTIES OF ACTIFILMS:**

- Non GMO
- Paraben free
- Natural, non-toxic, non-comedogenic and non-allergenic properties
- Gentle and Effective on skin
- Rapid dispersion with excellent uniformity.
- Activates four product senses you can see, smell, taste & touch it and disappears on rubbing
- Nature friendly as soluble in water

### **OLIVE OIL**

Olive oil is a liquid fat obtained from the fruit of the olive tree. Olive oil is composed mainly of triacylglycerols (triglycerides or fats) and contains small quantities of free fatty acids (FFA), glycerol, phosphatides, pigments, flavor compounds, sterols, and microscopic bits of olive. Olive oil provides many benefits for the skin, including vitamins, antioxidants, and antibacterial effects.

### **INCI NAME:**

Olea europaea (**Olive**) Fruit Oil



**Different shapes/colours of Actifilms**

### **WHY ENCAPSULATED OLIVE OIL?**

Encapsulation Technology is used in the development of cosmetic formulations that more stable, more effective and with improved sensory properties. The main aim of encapsulation to protect the active material from undesirable reactions. Olive oil is more resistant to oxidation because generally, the greater number of double bonds in fatty acid, the more unstable the bond and easily broken down by heat, light, air causing oxidation and give the unwanted flavor. Therefore all problems can be minimized by the encapsulation of Olive Oil.

## EFFECT OF ENCAPSULATED OLIVE OIL IN BATHBOMB :



Bath bombs are single-use, spherical blends of smoothing, fragrant extracts and oils . Amazing scent therapy with effervescent bathbomb of delight creates an atmosphere of opulence and luxury that refreshes and relieves stress of the body .

The primary ingredients are sodium bicarbonate and citric acid, which interact with each other once dissolved in water to create that fizzing effect . Once this reaction occurs, the bath bomb dissolves and breaks apart, releasing all the good stuff inside: from delicious scents to delivering actives that gets dispersed into water to provide clear, soft, healthy and glowing skin .Encapsulated olive oil in bath bombs easily penetrates the skin to boost moisture and provides free radicals and protect the damage cell of the skin. Encapsulated olive oil is rich in vitamin A,D,E,K , which nourishes, renews, refreshes and resuscitates the skin and protect the skin barrier.

### FORMULATION PROCEDURE:

**Step I:** Dry mixing of Xanthan Gum and Citric acid .

**Step II:** Dry mixing of sodium bicarbonate and sodium starch glycolate.

**Step III:** Dry mixing of mannitol, cross caramellose sodium lauryl sulphate.

**Step IV:** PVPK-30,colour ,purified water (solution preparation)

**Step V:**Addition of Step I , II , III is added to the mixture. Stirring under vaccum is resumed without further heating.

**Step VI:**Addition of Step IV into Step V followed by addition of fragrance .The fragrance added is mixed under vaccum at room temperature. Encapsulated Olive Oil actifilms are added at the end of manufacturing at moderate temperature and at slow stirring.

### FORMULATION TIP

#### BATH BOMB

Ingredients	Qty (%)
Xanthan Gum	55.05
Citric acid	24
Sodium bicarbonate	30
PVPK30	2
Sodium Starch Glycolate	2
Mannitol	5
Cross caramellose	1
Fragrance :Rose	1
Color:Blue	1
Actifilms with Olive Oil	0.2
Purified water	Up to 100%

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

**STORAGE:** Temperature between 5° C - 25° C

**KEY WORDS:** Encapsulated films, fast dissolving films ,films for special effects, HPMC films, dissolving films for bathbomb, water soluble films for decoration.