

FORMULATION OF ENCAPSULATED LEMON OIL ACTIFILMS FOR BATHBOMB



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.

KEYWORDS: Encapsulated films, fast dissolving films, films for special effects, HPMC films, dissolving films for bathbomb, water soluble films for decoration.

LEMON OIL:



Lemon Oil contains various chemical compounds

that include Limonene, Citral, Geranial, Citronellyl Acetate, Pinene, carotene and pectin. Lemon oil contains vitamin C and antioxidant that helps in highly detoxifying and energizing skin cells and also to keep body fresh and zesty.

INCI NAME:

Citrus medica limonum (Lemon) Peel Oil

KEY PROPERTIES OF ACTIFILMS:

- Non GMO & Paraben free
- Easy to handle at the industrial scale
- Natural, Non toxic and Non irritant, and non-allergenic properties

WHY ENCAPSULATED LEMON OIL ?

Encapsulation Technology used in the development of cosmetic formulations that more stable, more effective and with improved sensory properties. Lemon Oil is typically light and temperature sensitive. It degrades rapidly. Lemon Oil quality which can be changed if oils gets oxidized and thus become rancid. These all problems are minimized by the encapsulation of lemon oil.

- Gentle and effective on skin with rapid dispersion and excellent uniformity
- Available in different shapes & colors
- Provides visual effects and activates four senses you can see, smell, taste & touch it and disappears on rubbing the product.

EFFECT OF ENCAPSULATED LEMON OIL IN BATHBOMB



Bath bombs are single-use, spherical blends of smoothing, fragrant extracts and oils. 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 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. Lemon oil used in make these bath bombs is wonderful for treating acne and reducing pores and excess oil on the skin. Encapsulated Lemon oil has antiseptic, antifungal, antimicrobial, astringent, and detoxifying properties that contribute to immune system function by killing harmful bacteria that can grow on your skin. Encapsulated lemon oil in bathbomb helps relieve dryness, flaking, itching, and related symptoms.

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 carmellose 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 vacuum 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 vacuum at room temperature. Encapsulated Lemon Oil actifilms are added at the end of manufacturing at moderate temperature and at slow stirring.

STORAGE: Temperature between 5° C - 25°C

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

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

Different shapes/colours of Actifilms

Golden colour Christmas tree shape

Golden colour Flower shape

Red Colour Pumpkin shape

