

ABS Pomegranate Sterols



functional active botanical replacement of both petrolatum and lanolin barrier protection, intense moisturization, sustainable hair + skin care, super fruit

BACKGROUND

Pomegranates may be one of the oldest medicines known to man, its use going back perhaps as far as 8000 years. Originating in the area ranging from Persia to Northern India this fruit has been cultivated throughout the Mediterranean since ancient times. The genus name comes from Punica the Roman name for Carthage; the original source for the Italian peninsula. The plant was believed to be introduced to the Americas by the Spanish. Pomegranate is widely cultivated in California and Mexico. Now used primarily in food products pomegranates have been used as a source of tannins as well as a means to produce inks and dyes. In Japan the wood has been used as the source of an insecticide. A source of citric acid, pomegranate juice can be used to treat dyspepsia and has been indicated for leprosy. Traditionally extracts from the plant have been used for astringent applications.

SCIENCE

With the advent of modern analytical techniques capable of closely studying lipids it seems that many of the benefits of pomegranates may actually be based on its oils. Pomegranate is a natural source of conjugated linolenic acid which has been shown to increase lipid metabolism¹. Additional research has shown that Pomegranate Seed Oil rich in conjugated linolenic acid is capable of reducing the occurrences of certain types of cancer².

Sustainably manufactured, Active Concepts extracts the material from lipid fractions of the unused pomegranate pericarp. **ABS Pomegranate Sterols** are derived from cold pressing the seeds for oil. The oil is then fractionated and the sterols are removed. Sterols are useful for increasing barrier formation on the skin while also improving hydration. Interested in ways we can further optimize material usage as we have a dedicated commitment to sustainable practices and use the residual fruit pulp to create other products such as ACB Modified Pomegranate Enzyme PF and ABS Pomegranate Extract (residual pulp is used to cultivate stem cells in culture).

Code Number: 10247

INCI Name: Punica Granatum Sterols

INCI Status: Approved

REACH Status: Compliant

CAS Number: 949109-75-5

EINECS Number: N/A

Origin: Botanical

Processing:

GMO Free

No Ethoxylation

No Irradiation

No Sulphonation

Additives:

Preservatives: None

Antioxidants: None

Other additives: None

Solvents Used: N/A

Appearance: White to Very Light Yellow Waxy Paste

Soluble/ Miscible: Oil Soluble

Ecological Information:

88.70% Biodegradability

Microbial Count:

< 100opg, No Pathogens

Suggested Use Levels: 0.5 – 5.0%

Suggested Applications: Improved Barrier Function, Moisturization

Benefits of ABS Pomegranate Sterols:

- Functional Active
- Intense Moisturizing Benefits
- Perceivable Sensorial Attributes
- Improved Barrier Function
- Hair and Skin Care Applications

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BENEFITS

This super fruit ingredient can be used as a natural replacement for synthetic materials such as petrolatum and animal-derived materials, like lanolin. **ABS Pomegranate Sterols** is capable of increasing moisture levels on the skin while enhancing the skin's barrier function to protect against environmental stress responsible for extrinsic aging.

As we know, many of the oils extracted from pomegranates are beneficial skin and hair care ingredients. The combined benefits, compliments of pomegranate's essential fatty acid content and known antioxidant properties, make **ABS Pomegranate Sterols** a one-two punch, perfectly designed by nature to quench our skin while providing protection.

EFFICACY

The Hydration Potential (Figure 1) was measured according to the British Pharmacopoeia (BP) water absorption capacity method. The process involves dripping water into a sample in a mortar and mixing well at room temperature. When no more water can be mixed into the emulsion, the sample is at the terminal point. Water Holding Capability (%) = (Amount of Water contained / Sample weight) x 100. **ABS Pomegranate Sterols** is capable of holding more than double its weight in water.

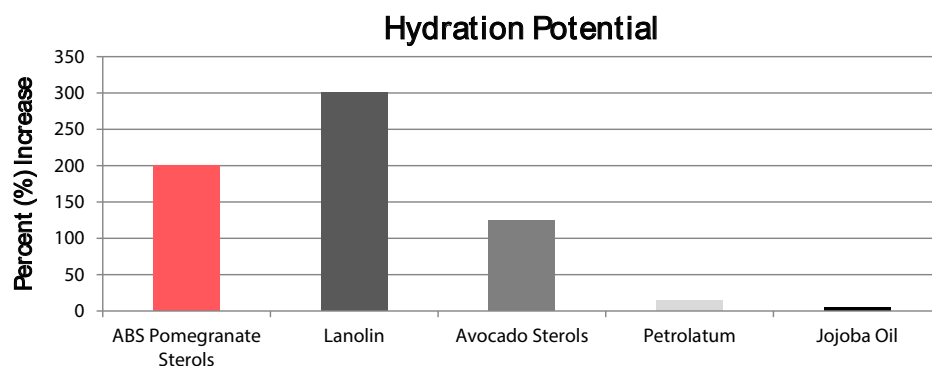


Figure 1. Increase in skin hydration when incorporating **ABS Pomegranate Sterols**.

In order to measure the ability to increase barrier function (Figure 2) a mixture of Sample Oil and Mineral Oil 70 (1:1) was applied on a filter paper, and the filter paper was placed on top of a measurement cup containing CaCl₂ solution. After standing for 24 hours at 25°C with 95%RH, the weight of the moisture that permeated through the filter paper was measured as increased weight. The Coefficient of Permeability was shown in percentage by comparing the weight increase with one in the case in which any oils were not applied. The higher the coefficient the less able the material is to increase barrier function.

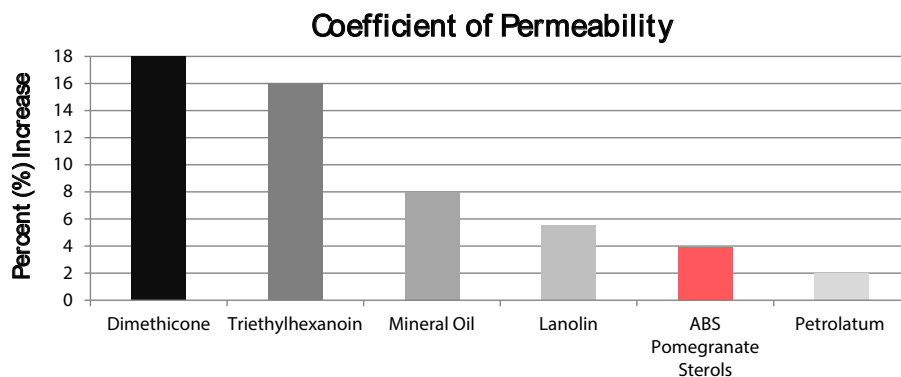


Figure 2. Increase in barrier function shown as an inverse relationship to the coefficient of permeability.