

# ABS POMEGRANATE STEROLS

Gloss Effect + Intense Moisturization + Skin Barrier Benefits + Hair and Skin Care

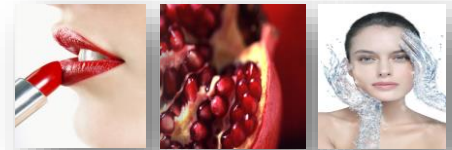


Tomorrow's Vision... *Today!*<sup>®</sup>

# ABS POMEGRANATE STEROLS

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## Technical Information:



**Product Code:** 10247

**INCI Name:** Punica Granatum (Pomegranate) Sterols

**INCI Status:** Approved

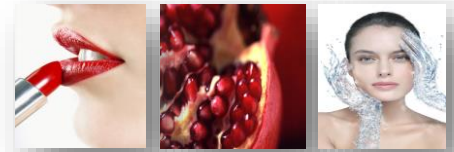
**Suggested Use Levels:** 0.5 – 5.0%

**Suggested Applications:** Moisturization, Hydration, Enhanced Barrier Function, Color Cosmetic Applications, Hair and Skin Care

**Solubility:** Oil Soluble

# POMEGRANATES + HISTORY OF USE

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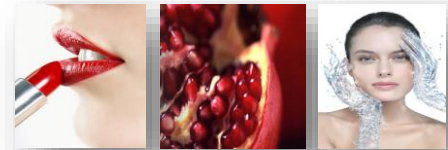


## Medicinal + Nutritious

- One of the oldest medicines known to man – approximately 8,000 years old
- Today, pomegranates are primarily used in food products
- Traditionally, extracts from the pomegranate have been used for their astringent properties in skin care applications
- Pomegranates are a natural source of conjugated linolenic acid → this has been shown to increase lipid metabolism
  - Many of the benefits of pomegranates may actually come from its oils

# APPLICATION VARIETY + POPULARITY

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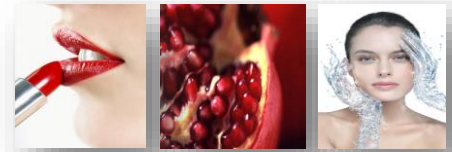


## ABS Pomegranate Sterols

- Ideal marketing for super fruit and natural cosmetic trends
- Imparts benefits in skin care formulations like moisturization and enhancing the skin's barrier function
- Adds gloss appearance to color cosmetics like eye shadows, cream blushes and lip products
- Intense hydration benefits when incorporated into hair care formulas

# VARIETY + FORMULATIONS

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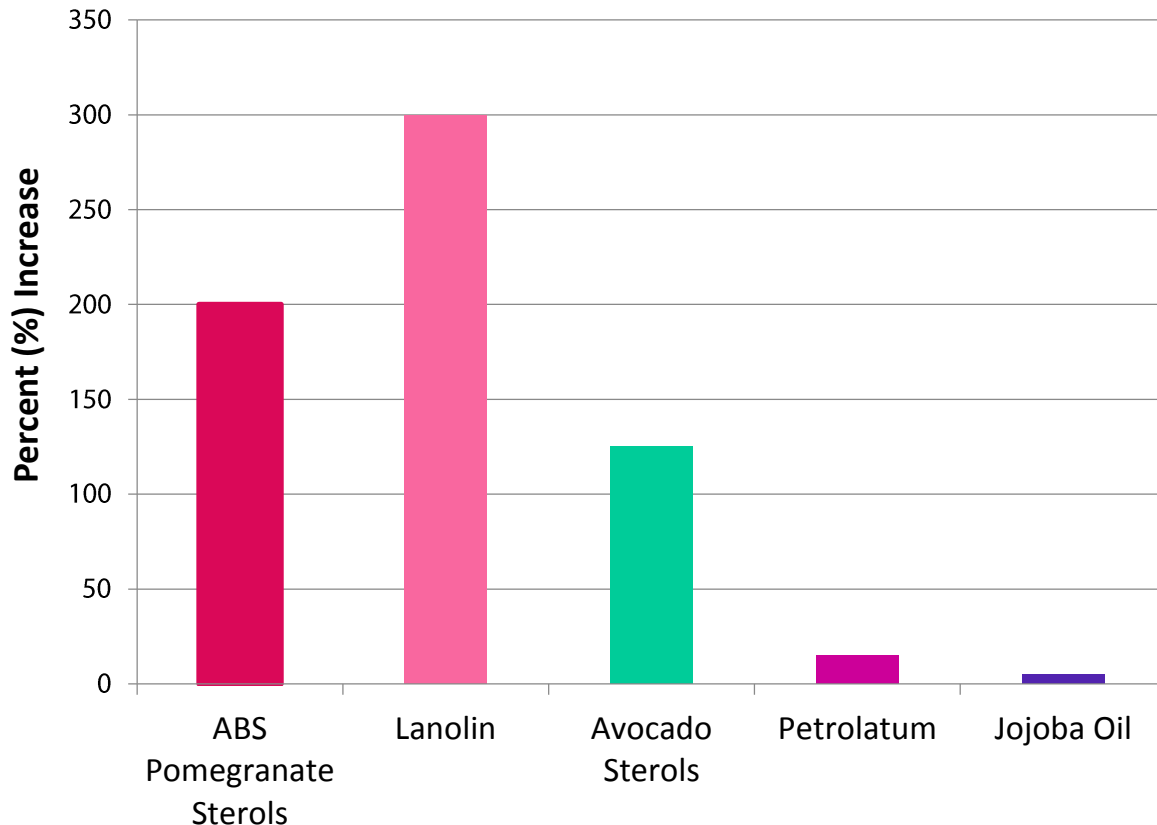


## ABS Pomegranate Sterols

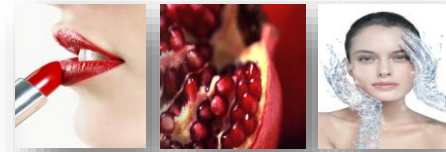
- Ideal as a natural replacement for synthetic materials such as:
  - Petrolatum
  - Lanolin
  - Animal-derived materials
- Soluble in Oleyl Alcohol, Cetyl Ethylhexanoate, Mineral Oils, Polybutene, and Phenyl Dimethicone (at 60C)
- Dispersible in Castor Oil
- Insoluble in Ethanol, Glycerin, Dimeticone and Cyclomethicone

# ABS POMEGRANATE STEROLS EFFICACY ASSAY RESULTS

## Hydration Potential Study



**Graph 1.** ABS Pomegranate Sterols is capable of holding more than double its weight in water and therefore will effectively hydrate the skin



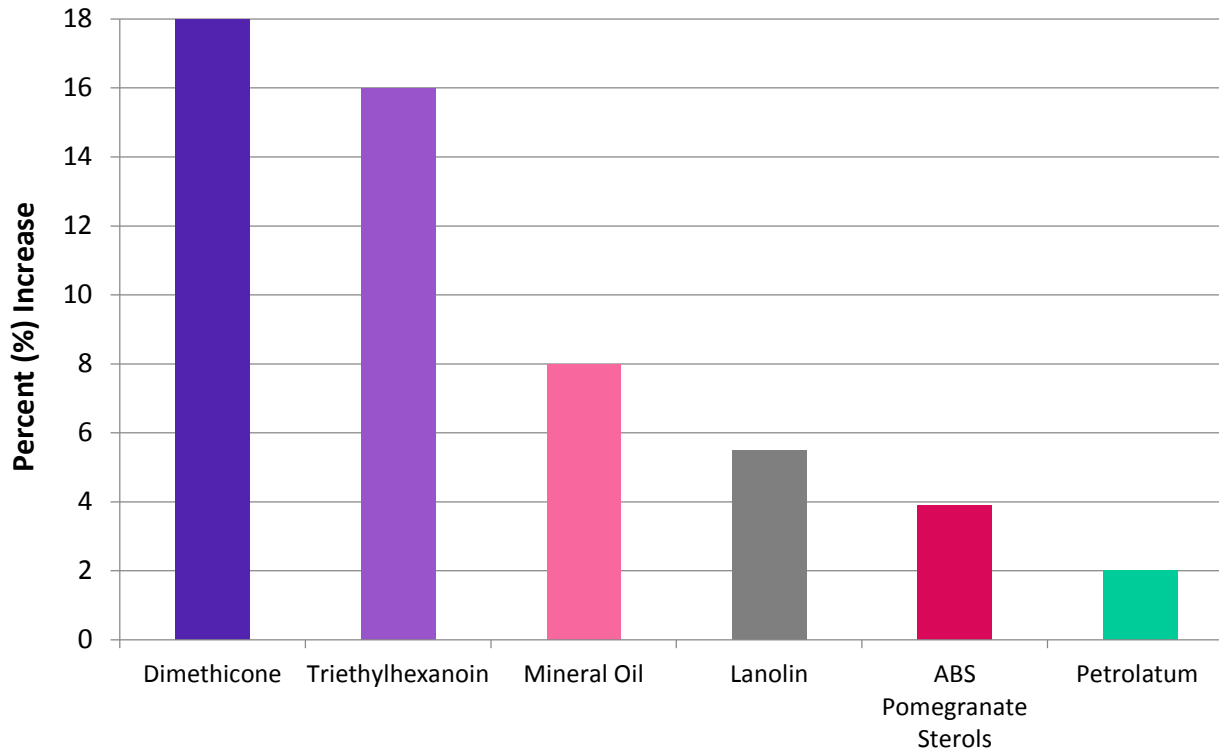
### Protocol

- British Pharmacopoeia Water Absorption Capacity Method
- Water is dripped into a product sample
- Mixed at room temperature with a mortar and pestle until terminal point is reached
- **Terminal point** is defined as the point at which no more water can be missed into a solution
- Water Holding Capacity Coefficient  
**(Amount of Water Contained/ Sample Weight) \* 100**

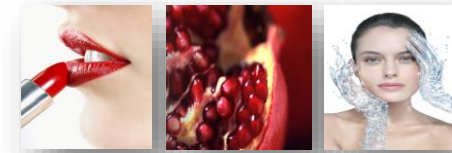
# ABS POMEGRANATE STEROLS

## EFFICACY ASSAY RESULTS

### Barrier Function Study – Coefficient of Permeability



**Graph 2.** Coefficient of permeability demonstrates that ABS Pomegranate Sterols is more effective in enhancing the skin's barrier function

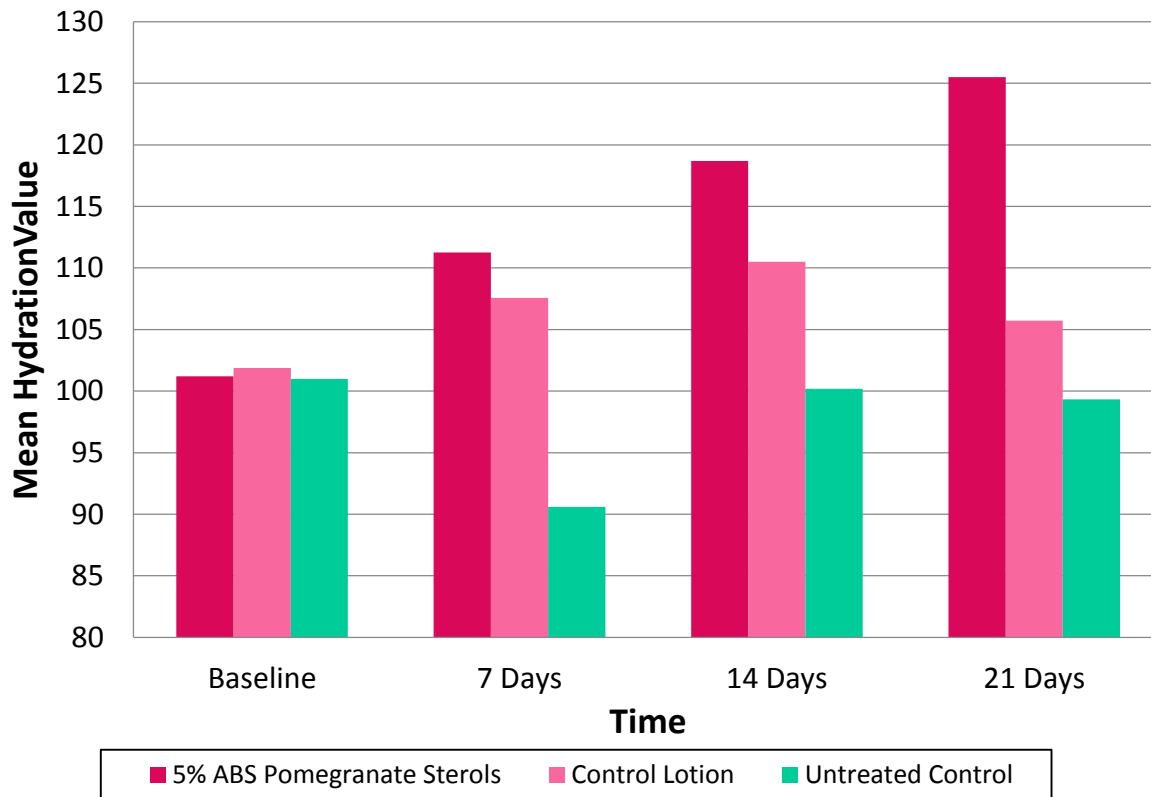
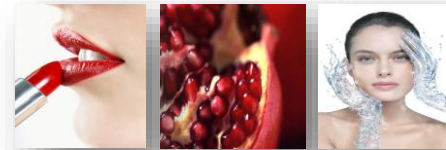


### Protocol

- Mixture of sample and mineral oil applied to filter paper
- Filter paper placed on top of a cup containing  $\text{CaCl}_2$  solution
- Conditions:
  - Time = 24 hours
  - Temperature = 25C
  - Relative Humidity = 95%
- The weight of the moisture permeated through the filter paper was measured as increased weight
- Coefficient of Permeability is a percentage comparing weight increase with a control to which no oils were applied
- Inverse relationship between coefficient of permeability and barrier function

# ABS POMEGRANATE STEROLS EFFICACY ASSAY RESULTS

## *in-vivo* Moisturization Assay



### Protocol

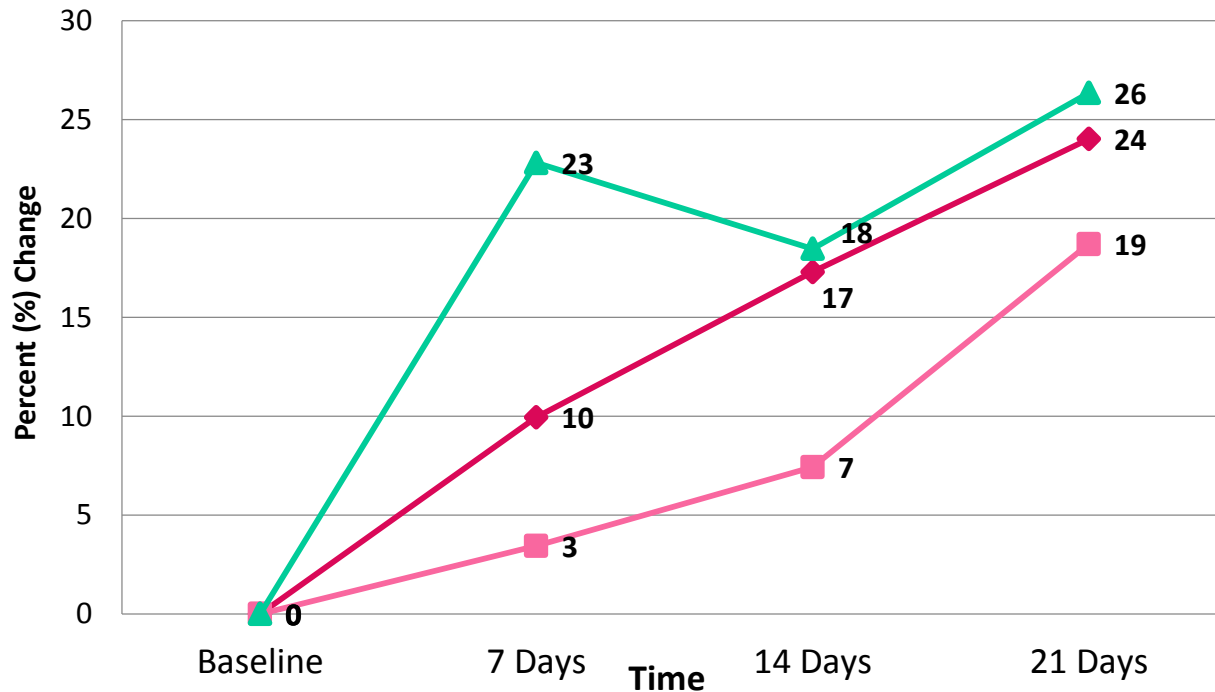
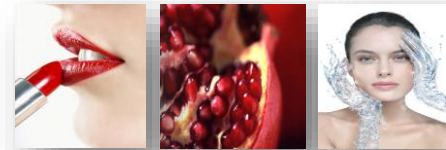
- 10 m/f – ages 22 to 41 applied two lotions to randomized areas on their volar forearms
- A control lotion (Cetaphil Moisturizing Lotion) and 5.0% ABS Pomegranate Sterols + Base Lotion to the respective skin lotion
- Applied lotions twice a day
- DPM 9003 Nova Meter was used to measure the baseline moisture level and then again at 7, 14, and 21 days
- Comparison of untreated test site, control lotion and test lotion were made

**Graph 3.** Average skin moisturization readings for participants at each of the three test sites over a period of three weeks



# ABS POMEGRANATE STEROLS EFFICACY ASSAY RESULTS

## *in-vivo* Moisturization Assay



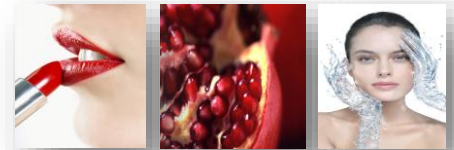
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**Graph 4.** Comparative skin moisturization results of the three test sites over 3 weeks

# SAFETY TESTING AVAILABLE

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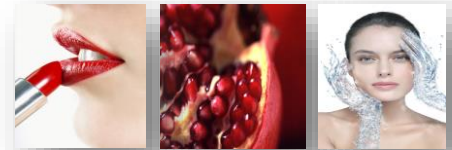
## ABS Pomegranate Sterols

- ✓ AMES
- ✓ Scarification Assay
- ✓ RIPT
- ✓ Neutral Red Cytotoxicity Assay
- ✓ *in-vitro* Dermal and Ocular Irritation Test

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