



# MICROSPONGE® C116A Retinol Delivery System

**Description:** A multi-functional delivery system designed to improve the stability and reduce the irritation of retinol. MICROSPONGE® C116A Retinol is a light yellow, free flowing powder that can be readily dispersed in gels, emulsions, and powders, minimizing the discoloration problems common with many retinol products.

### Typical Properties

**INCI Name:** Retinol, Methyl Methacrylate/Glycol Dimethacrylate Crosspolymer, Tocopheryl Acetate, Ascorbic Acid, Disodium EDTA, Propyl Gallate, Polysorbate 20 and BHT  
**Appearance:** Off-White to pale yellow, free flowing powder  
**Retinol Concentration:** 22.5% +/- 2.5%

### Retinol Benefits In Anti-Aging Formulations

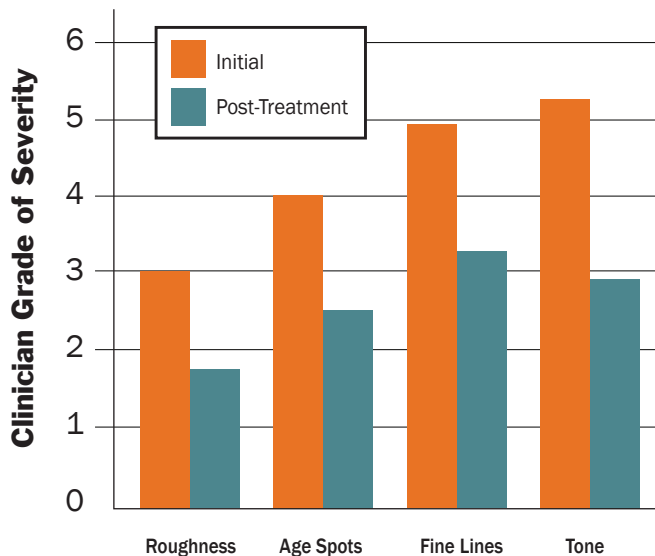
Retinol is one anti-aging ingredient whose efficacy has been consistently demonstrated through clinical studies to effectively fight underlying causes of skin aging including the stimulation of procollagen production, inhibition of MMP, increased cell proliferation and minimization of Langerhans cell depletion. The mechanism of retinol's efficacy has also been well established. When reaching for an antiaging active, retinol should be your first choice. With the use of our MICROSPONGE technology, you can also help to reduce the irritation often associated with retinol through our patented sustained release technology.

### MICROSPONGE® C116A Retinol Benefits in Your Formulation

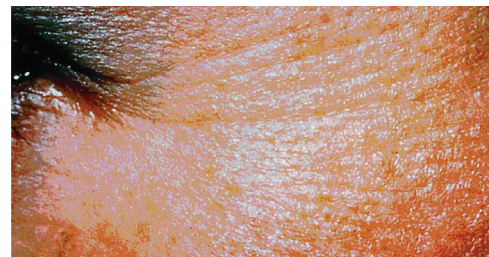
- Clinically proven efficacy
- Sustained Release (Time Release) of retinol
- Reduced Irritation compared to other retinol technologies

### Clinical Results – Photodamaged Skin

Efficacy of the HPC 0.15% Retinol Formulation



Initial



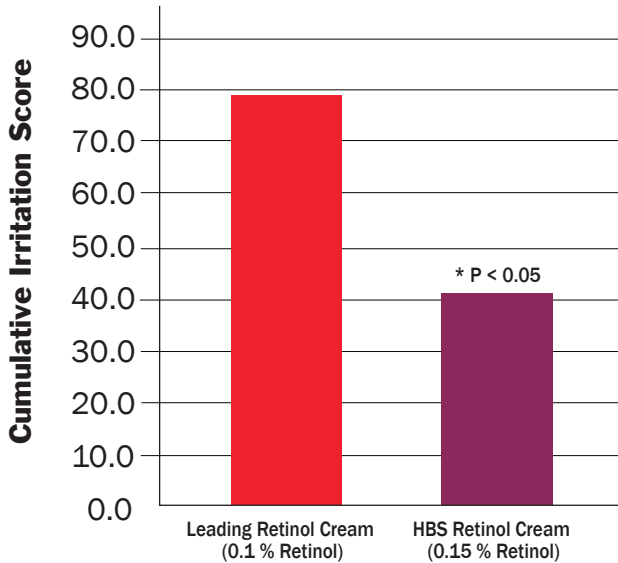
Post Treatment





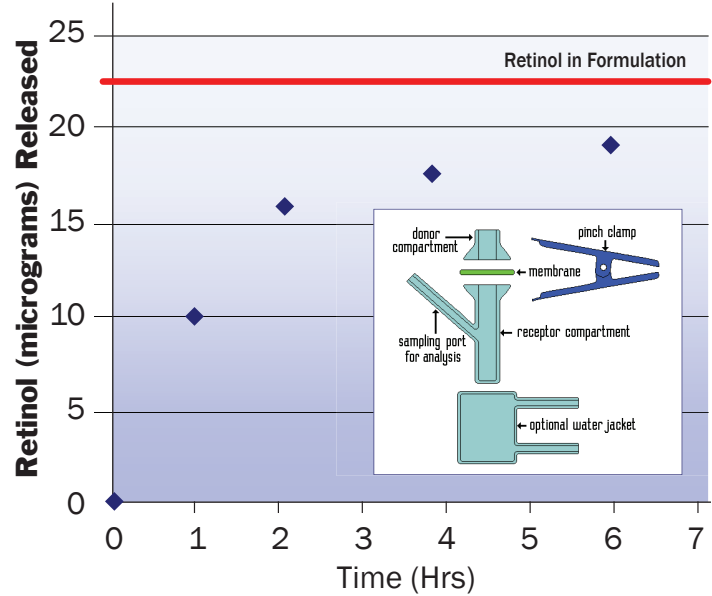
Clinically proven to give a 38% reduction in the appearance of fine lines, wrinkles, roughness and age spots in over 95% of test subjects According to Kligman – “clinical results seem comparable to Renova®”

Reduction in Irritation



46% less irritation with 50% greater retinol content compared to the leading global brand

Sustained Release – Franz Diffusion Cell Study



HBS 0.15 % Retinol cream – 85 % of the retinol released in 6 hours

Formulation Guidelines:

While MICROSPONGE C116A Retinol can help improve the stability of retinol in your product, it still requires care to provide the optimum benefit. Retinol should always be handled under yellow light to prevent isomerization and exposure to oxygen should be minimized by sparging the formulation with nitrogen and adding the C116A Retinol during the cool down phase of making an emulsion. Once the original package has been opened, use all of the retinol or reseal the bag.

