Health & Beauty Solutions, Inc.

Poly-Pore® 120TRE Retinol Delivery System

Poly-Pore® 120TRE (PP120TRE) is a multi-functional retinol delivery system designed to improve the stability and reduce the irritation of retinol. PP120TRE is BHA-Free and thereby avoids the requirement for a California Proposition 65 warning label on retinol finished products that contain BHA. PP120TRE also is BHT-Free and uses the antioxidant power of Vitamin E (Tocopherol) to promote the stability of retinol. PP120TRE is an off-white to pale yellow, free flowing powder that can be readily dispersed in gels, emulsions, and powders, minimizing the discoloration problems common with many retinol products.

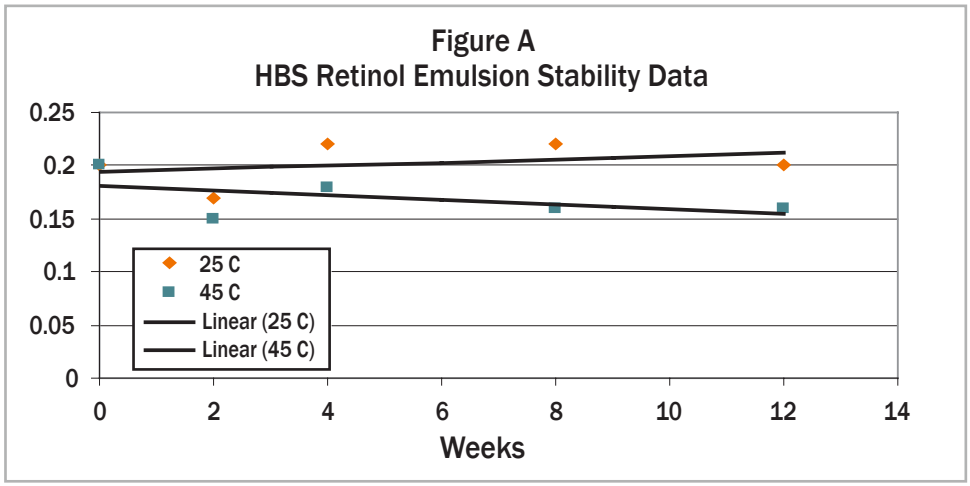
Typical Properties

Composition:	Allyl Methacrylate Crosspolymer, Polysorbate 20, Retinol and Tocopherol
Appearance:	Off-white to pale yellow, free flowing powder
Retinol Concentration:	20 % ± 2.0%

STABILIZE AND PROTECT

PP120TRE isolates retinol deep within the core of the Poly-Pore® microparticle matrix, helping to minimize exposure to light and oxygen. It also incorporates an antioxidant system to help further protect the product from degradation, and improve the ability to formulate with the material under normal processing conditions.

Figure A shows the stability profile of an anti-aging retinol cream containing retinol in the Poly-Pore® delivery system.* The stability testing was conducted in oxygen barrier packaging. The data shows that the retinol remains available in the formulation under accelerated aging conditions (12 weeks @ 45°C) that justify a full 2-year shelf life for the product.



MINERALS TECHNOLOGIES
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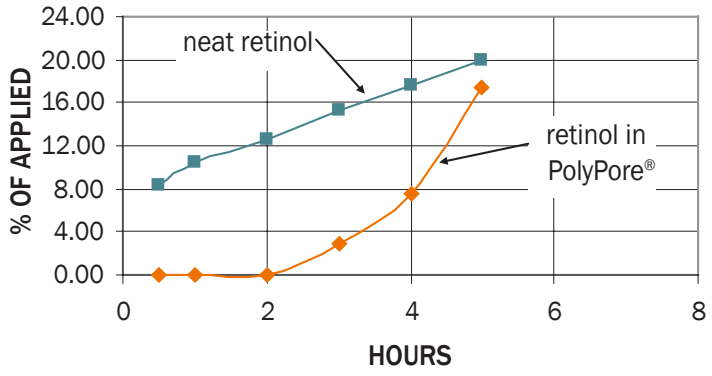
CONTROLLED DELIVERY OF FUNCTIONAL INGREDIENTS

The matrix of the Poly-Pore® delivery system provides a ready "reservoir" for retinol. The release of these ingredients occurs through a combination of friction and diffusion, providing a substantially slowed release of the active.

The Franz diffusion cell retinol release profile for an emulsion containing retinol in the Poly-Pore® microparticle matrix* is shown in Figure B. The data shows that, compared to un-entrapped retinol, the Poly-Pore® delivery systems delivers retinol. slowly over time resulting in an effective treatment with lower irritation potential.

Figure B
FRANZ CELL RETINOL DIFUSSION THROUGH NYLON MEMBRANE



Example anti-aging formula featuring the Poly-Pore® Delivery System

1	A	WATER, DEIONIZED	52.12
2	A	CARBOMER (2% SOL'N)	18.81
3	A	NA2EDTA	0.12
4	B	GLYCERYL STEARATE (and) PEG-100 STEARATE	3.76
5	B	OCTYLDODECANOL	12.54
6	B	STEARETH-21	
7	B	BEHENYL ALCOHOL	2.51
8	C	TRIETHANOLAMINE 99%	0.38
9	D	Poly-Pore® Retinol Delivery System	1.00
10	E	PRESERVATIVE	0.25
		TOTAL	**100.00**

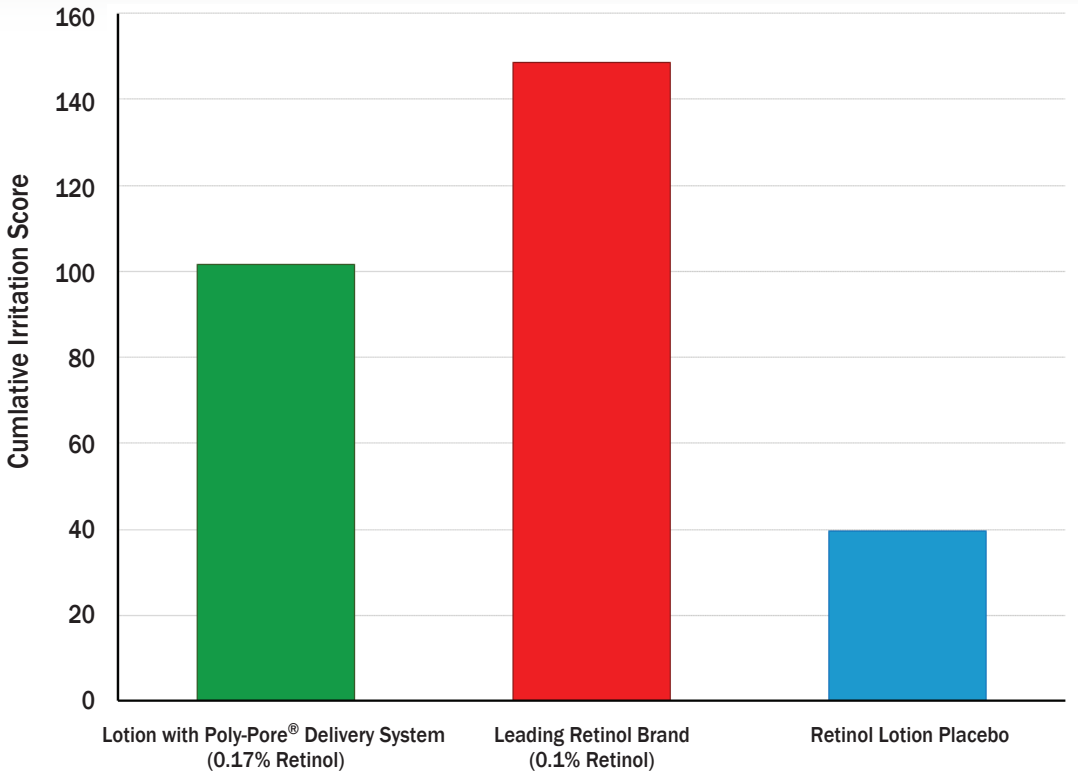
Manufacturing instructions: Combine phase A at 75C. Combine phase B at 75C. Add phase B to phase A. Add phase C. Cool to 20C and add remaining phases.

REDUCTION IN IRRITATION

To assess a key benefit that the Poly-Pore® retinol delivery system brings to an anti-aging cream of reducing irritation during use, the cumulative irritation potential for three products were compared in a placebo-controlled, double blinded clinical study (N=27) using human volunteers. The following products were evaluated:

1) Anti-aging lotion formulated with the Poly-Pore® delivery system* at a concentration of 0.17% retinol with all of the retinol entrapped,
2) The same formulation base was used as described above except that no Poly-Pore®/retinol was added to the product (placebo), and
3) A leading retinol cream which contained 0.1% retinol, with all of the retinol in the free state.

The results are shown in Figure C where the product containing the Poly-Pore®/retinol delivery system showed a statistically ($p < 0.05$) significant reduction in irritation compared to a market leading product even with a 70% greater concentration in the Poly-Pore product. The Poly-Pore® delivery system delivers lower irritation at higher retinol concentrations leading to better customer compliance with product that use the Poly-Pore® retinol delivery system technology.



BENEFITS

- Significantly improves the stability of retinol, resulting in formulations that are more effective
- Extended release results in reduced irritation and long-lasting availability at the site of action
- Provides sebum control
- Enhances emulsion stability
- Provides secondary thickening in gels and emulsions

TYPICAL APPLICATIONS

- Anti-aging and skin rejuvenation products
- Cellulite treatments
- Make-ups and foundations incorporating skin-care benefits
- Daily use moisturizers and lotions
- Facial and body masks
- Loose and pressed powders
- Hand and body lotions

STORAGE RECOMMENDATIONS: Retinol must be kept in original container under refrigerated storage until use (refrigerated transportation not required). For best results, use the complete package after opening.

*Studies were conducted using Poly-Pore® 120RE which uses an alternative stabilization system.