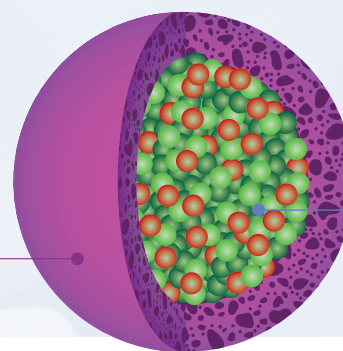


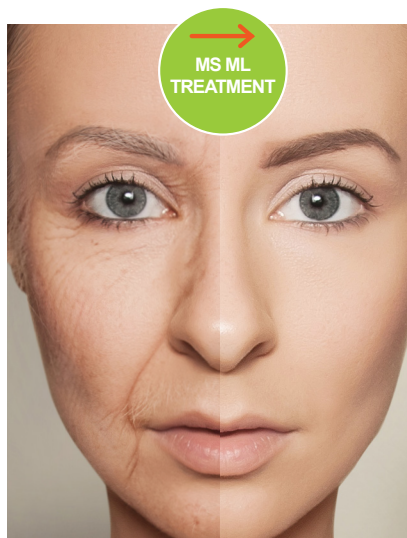
MultiSal® Multilayer (MS ML)

An anti-aging system composed of multiple functional compartments within a single microsphere, designed to target multiple layers of the skin for an effective and comprehensive skin rejuvenation.



Shell **Core Functional Ingredients**

Figure 1: The structure of MS ML. Microspheres with active ingredients in their shell encapsulate smaller sub-micron spheres, which contain additional ingredients.



In typical skincare formulations, it is challenging to formulate with functional ingredients that require different pH levels for optimal activity in a single product. More specifically, acids cannot be mixed with peptides, due to stability issues and counter-activity. Thus, the traditional solution is to apply multiple products in a consecutive manner (i.e. exfoliation, followed by hydration, followed by peptide treatment). This regimen requires extra time for application, in addition to the money that must be spent to purchase multiple products.

MS ML is a new type of technology that allows for the encapsulation of functional ingredients in separate compartments. They are then bundled into a single microsphere, creating a smart encapsulation that allows for release in a controlled manner while delivering to different layers of the skin. This technology keeps the ingredients from counteracting one another.

UNIQUE FEATURES

1 SINGLE UNIT WITH MULTIPLE FUNCTIONAL INGREDIENTS

The microsphere contains three separate compartments infused with different functional ingredients at optimal loading.

2 TARGETING MULTIPLE SKIN LAYERS

Delivery of exfoliation and hydration to the top layers while enabling penetration of sub-micron spheres into different layers of the skin.

3 STABLE PRODUCT

MS ML is stable in a variety of lotions and creams.



MS ML raw



1 Lotion



2 Cream

HOW THE TECHNOLOGY HELPS YOU

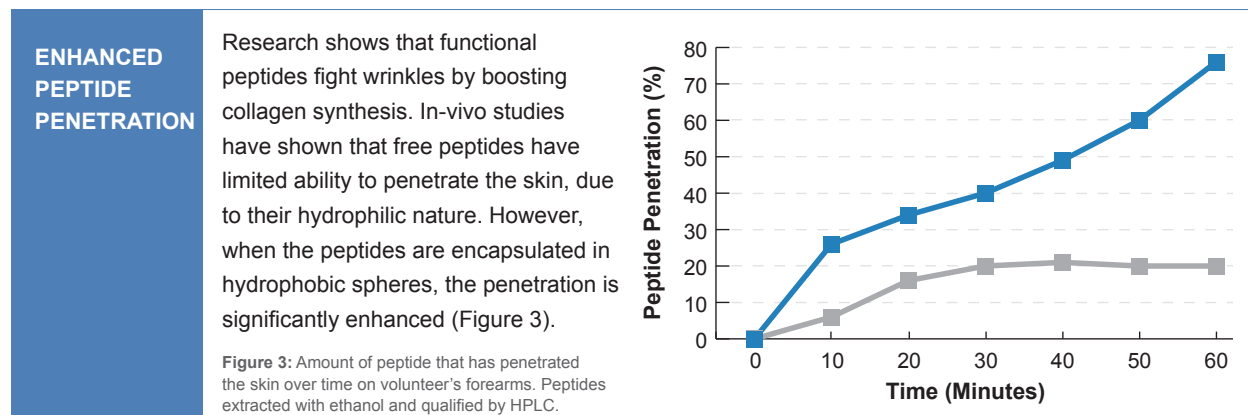
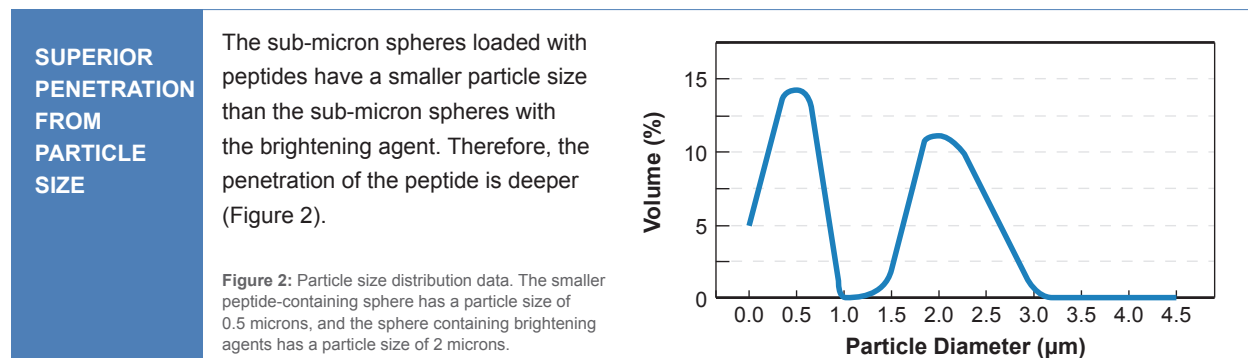
MS ML technology consists of microspheres that contain smaller sub-microns (Figure 1). The microspheres break down upon rubbing, releasing the AHA encapsulated within the shell. The release of the AHA reduces the pH of skin for some time. As the shell collapses, the sub-micron spheres release gradually. There are two types of lipophilic sub-micron spheres, differing in size and composition. They release the encapsulated functional ingredients and fully dissolve into the skin. The smallest spheres deliver the functional ingredients to the deepest layers of the skin.

The outermost layer of the epidermis, the stratum corneum, is the layer of the skin that most resists penetration of functional ingredients. Chemical exfoliation allows vibrant skin to the surface, allowing penetration into deeper layers of the skin.

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FUNCTIONAL INGREDIENTS	Ingredient	Function
	Lactic Acid, AHA	Exfoliates and moisturizes the skin, causing dead skin cells to become “unglued” and slough off
	Phenylethyl Resorcinol	Antioxidant that works as a highly effective brightening agent
	Collagen-boosting Tripeptides including Palmitoyl Tripeptide-5	Unique blend of peptides that reaches the deeper layer of the skin to stimulate collagen synthesis



FORMULATION TIPS	Use with anhydrous systems or formulations with less than 40% water. Pre-disperse in a natural oil.	
TECHNICAL DATA	Appearance @ 20°C	Free flowing powder
	Applications	Suitable for skin care and water and/or anhydrous lotions or creams
	Color	White
	Odor	Odorless
	pH (1 % solution)	5.0 ± 1.0
	Shelf Life (months)	24
	Storage (°C)	Dry, closed container at 12-32°