

## High expectation on APPS by many dermatologists



APPS is an epoch-making and innovative  
Vitamin C derivative for personal care

We, dermatologists, have been focusing on the topical external treatment of acnes with Vitamin C derivatives for many years. Many cases show its effectiveness on inflammation and erythema, and significant improvements. APPS is the best among the vitamin C derivatives currently available, thanks to its transdermal absorption. We recommend APPS for your daily skin care.

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Pigmentations, Wrinkles,  
Pores, Acnes et.al.  
ultimate active for  
any kind of skin troubles

# APPS



Brand-new pro-vitamin C  
characterized by  
its strong and immediate  
penetration into the skin



APPS - easily penetrates into dermis through the horny layer and the basal layer of the skin, and supplies enough amount of Vitamin C into dermis.

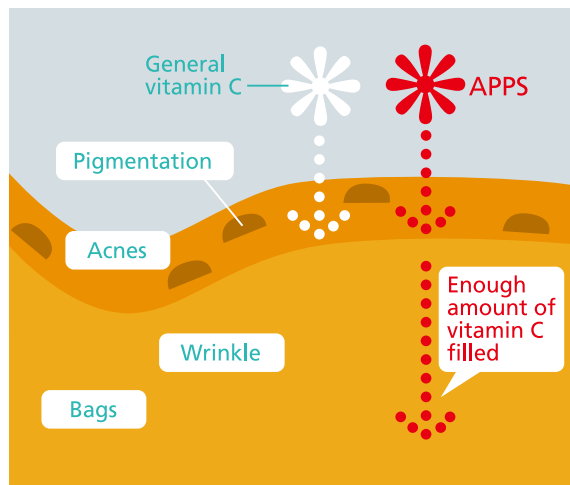
The obvious and quick efficacy can easily be checked once APPS is applied on the skin.

Vitamin C is very famous and a popular active ingredient for personal care. It is useful for skin-brightening, acnes and collagen synthesis. Especially on anti-aging, vitamin C should be efficiently supplied into dermis, and APPS was especially designed and developed for this purpose.

### Ultimate vitamin C derivative for strong skin care and anti-aging

There are a few vitamin C derivatives available for cosmetic products such as active agent for skin-brightening and anti-aging. Many of them, however, are hydrophilic and 'therefore' only suitable for aqueous formulations. APPS is unique as it has an amphiphilic chemical form, which contributes to the penetration through basal layer without any loss of solubility. APPS is the only amphiphilic vitamin C derivative available worldwide and attributes, therefore, a new potential of vitamin C to skin care. APPS is successfully used in a large variety of formulations and strongly appreciated by the skincare industry.

Dermis is supplied with the needed amount of vitamin C thanks to APPS.

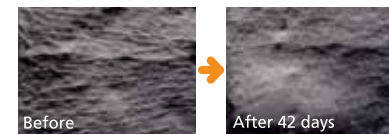


### Strong efficacy on preventing and curing skin-pigmentations, acnes, wrinkles and bags

Many skin troubles come from ROS and its location into dermis. APPS can easily penetrate into dermis through epidermis thanks to its unique amphiphilic character. Resultant efficacy on pigmentation, acnes and wrinkles are easy to notice.

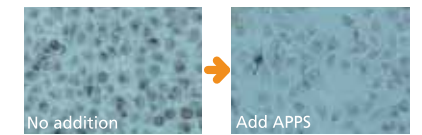
**Wrinkles** Prevention against collagen damages and support of collagen renewal.

APPS prevents collagen damages by matrix metalloproteinase attack, and helps to produce new collagens as a coenzyme. Wrinkles improve by applying vitamin C on the skin.



**Pigmentation** Pigmentation Suppression of melanin synthesis, and removal of the pigmentation caused by UV.

APPS strongly prevents the melanin synthesis as shown by an in vitro experiment, using B16 melanoma system.



**Acnes** Anti-inflammation effect and scavenging ROS



APPS scavenges ROS for skin troubles and has an anti-inflammation effect. APPS also suppresses the synthesis of androgens, which enhances the secretion of sebum in the skin; thus acnes should be significantly improved.