

ABS Coconut Water PF



topical + tropical
Mother Nature's Cocktail
Nourishing, conditioning
nutrient rich
ideal for skin + hair care

BACKGROUND

Coconut water is tropical paradise for the skin. This preferred drink of the tropics is often consumed straight from the fruit and accompanied by a mini umbrella. Not only is coconut water the new craze that fitness enthusiasts use as their "go to" drink for rehydration, but coconut water is ideal for skincare to cool and refresh the skin. America's latest health craze has crossed over into skin care in a big way. Its high nutrient, mineral, and moisture content make it perfect to rehydrate the skin. **ABS Coconut Water PF** can incorporate natural hydration into skincare for a refreshed look and feel.

This new "it" beverage has been dubbed Mother Nature's tropical cocktail. Naturally hydrating, coconut water has a sweet, nutty taste. Coconut water is clear liquid from the fruit of the coconut palm, tapped from the coconut at a young age, while the fruit is still green. It contains easily digestible carbohydrates in the form of sugar and electrolytes, which is why it has seen interest as a healthier sports drink alternative. Sports drinks are popular within the recreational and fitness worlds, while most are just artificially flavored beverages. The attention has turned to coconut water, as a natural alternative to manufactured sports drinks with initial evidence indicating the ability to maintain hydration¹. As coconut water continues to have the reputation for being low in sugar, with only 6 grams/cup, and an electrolyte mineral rich rehydration beverage, often used as an alternative to avoid the sports drinks packed with added sugars and artificial colors. Electrolytes help maintain fluid levels within the body and are necessary to regulate muscle function.

SCIENCE

Coconut water has been used for centuries in tropical climates for hydration. While also having a strong history of use in medical applications, this nutrient rich water is a viable source of bio-water, packed with nutritional benefits. There are cases where coconut water has been used as an intravenous hydration fluid during World War II and in some developing countries for patients, where saline was unavailable.² The electrolyte composition of coconut water resembles intracellular fluid and more closely than extracellular plasma, while also being rich in essential amino acids.^{3,4}

Code Number: 10568PF

INCI Name: Cocos Nucifera
(Coconut) Water

INCI Status: Conforms

REACH Status: Complies

CAS Number: 8001-31-8

EINECS Number: 232-282-8

Origin: Botanical

Processing:

GMO Free

No Ethoxylation

No Irradiation

No Sulphonation

Additives:

Preservatives: None

Antioxidants: None

Other additives: None

Solvents Used: N/A

Appearance: Clear to Hazy Liquid

Soluble/ Miscible: Water Soluble

Ecological Information

87.35% Biodegradability

Microbial Count: <100 CFU/g,

No Pathogens

Suggested Use Levels: 1.0 - 10.0%

Suggested Applications: Nourishing,
Moisturizing, Antioxidant

Benefits of ABS Coconut Water PF:

- Natural Electrolyte Minerals
- Intense Nourishing Benefits
- Nutrient Rich
- Skin and Hair Care

ABS Coconut Water PF

Electrolytes help maintain fluid levels within the body and are necessary to regulate muscle function. All life forms require an electrolyte balance between the intracellular and extracellular environment. Containing more Potassium than a medium banana, coconut water is packed with important electrolyte minerals. This important mineral is needed for regulating muscle cell function in the heart as well as maintaining nerve function. Sodium is just as important, as it maintains the body's fluid balance.

A low sodium level, hyponatremia, is the most common electrolyte disorder in the U.S.⁴ Another important mineral is Calcium, which plays an important role in bone formation, with a deficiency often leading to osteoporosis with increasingly weak or broken bones. Magnesium is essential to all cells of living organisms and in humans can help prevent both stroke and heart attack. While Phosphorus plays a major role in biological molecules, such as DNA and RNA, it helps form part of the structural framework of these important molecules. Zinc is an essential element, necessary for plants, animals and microorganisms. Zinc also has a role in the metabolism of RNA and DNA while also regulating apoptosis. It is also known to play a role in maintaining normal functioning of the brain and central nervous system.

BENEFITS

The benefits do not stop there. As mentioned, coconut water is full of essential amino acids while also containing enzymes, antioxidants and phytonutrients. Coconut water is also a natural source of cytokinins, which are plant hormones that have been known to provide anti-aging benefits.⁵ These hormones regulate growth, development and aging, as they influence the rate at which plants age. Cytokinins have been known to have an anti-aging effect on human tissues and cells.⁵ When added to the culture medium, the normal aging process slowed down. Due to these advances, cytokinins, have the reputation for being beneficial for anti-aging effects.

This health craze has crossed over into skincare with several companies incorporating coconut water into their products in order to capitalize on this skyrocketing trend. Coconut water is one of the most rapidly growing trends, with demands likely to increase. **ABS Coconut Water PF** is a great way to utilize this "here to stay" trend while incorporating natural hydration into skin and hair care products.

Electrolyte Mineral	Unit (mg/cup)
Potassium	600
Sodium	252
Calcium	58
Magnesium	60
Phosphorus	48
Zinc	0.28

Figure 1. Typical electrolyte minerals found in 1 cup of coconut water.

EFFICACY

An Oxygen Radical Absorbance Capacity (ORAC) assay was conducted to assess the antioxidant capacity of AC Party Face Pom. As shown in Figure 2, **ABS Coconut Water PF** exhibited antioxidant activity comparable to 200µM Trolox®. The antioxidant capacity of **ABS Coconut Water PF** increased as the concentration increased. As a result we can assure that its ability to minimize oxidative stress is dose dependent and that **ABS Coconut Water PF** is capable of providing antioxidant properties.

ABS Coconut Water PF

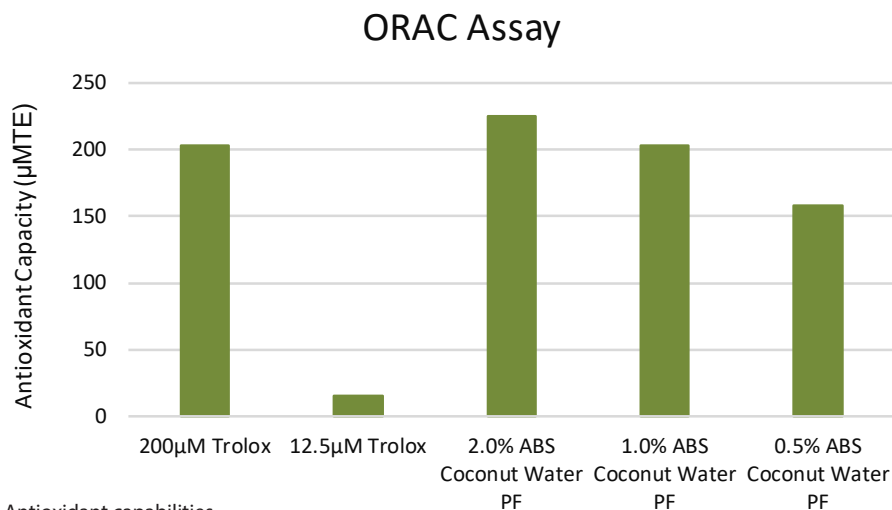


Figure 2. Antioxidant capabilities.

Another study was conducted to measure the *in-vivo* moisturizing ability of **ABS Coconut Water PF**. Initial readings were taken on 10 M/F panelists, followed by measurements after 24 hours, and each week for four weeks using an Impedance Meter. This piece of equipment employs an impedance-based electronic sensing system to evaluate conductance. Comparisons of the base lotion to the experimental lotion containing 2.0% **ABS Coconut Water PF** demonstrate the experimental material moisturized the skin 21.8% better after 24 hours. After four weeks the base lotion containing 2.0% **ABS Coconut Water PF** moisturized skin 15.1% better than the base lotion alone.

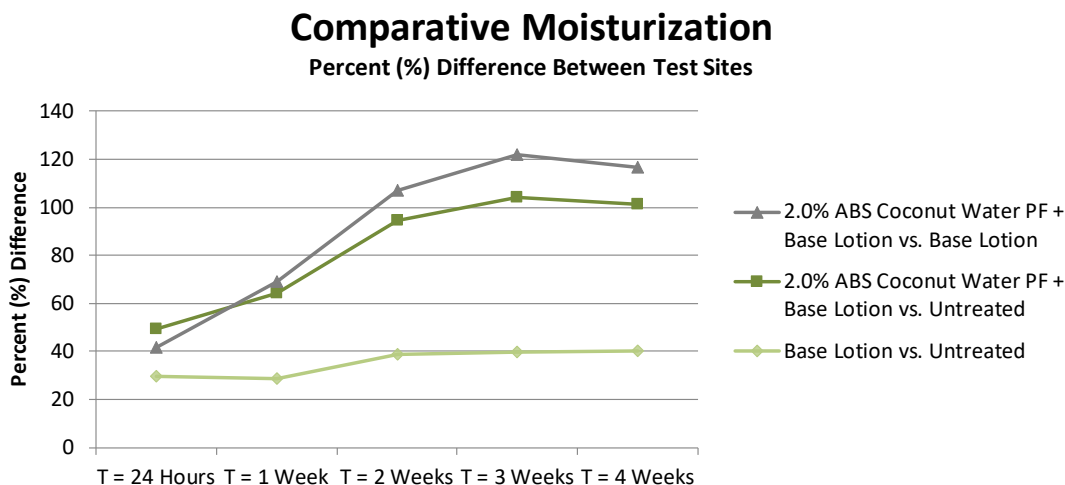


Figure 3. Percent difference in moisturization following applications of test materials.

References:

- 1) Kalman DS, Feldman S, Krieger DR, Bloomer RJ. Comparison of coconut water and carbohydrate-electrolyte sport drink on measures of hydration and physical performance in exercise-trained men. *Journal of International Society of Sports Nutrition*. 2012 Jan 18; 9(1).
- 2) Campbell FD, Thomas T, Falck TM, Tamara T, Clem K. The intravenous use of coconut water. *American Journal of Emergency Medicine*. 2000 Jan 18(1):108-11.
- 3) Pradera ES, Fernandez E, Calderin O. Coconut water: a clinical and experimental study. *American Journal of Disease of Children*. 1942; 64:977-95.
- 4) Schrier RW, Bansal S. Diagnosis and management of hyponatremia in acute illness. *Current Opinion in Critical Care*. 2008 Dec;14(6):627-34.
- 5) Rattan SIS, Clark BFC. Kinetin delays the onset of aging characteristics in human fibroblasts. *Biochemical & Biophysical Research Communications*. 1994;201:665-672.