



NuCera Solutions

www.nucerasolutions.com

PERFORMA™ V 6112 polymer – The Biobased Film Former for Water Resistant Sunscreens & Color Cosmetics

PRODUCT/SERVICE BACKGROUND INFORMATION

With an 85-year history of innovative chemistry, NuCera Solutions is a global leader in the development and manufacture of waxes and highly differentiated specialty polymers. Our products offer solutions for markets that require high quality and performance, including Personal Care, Adhesives, Candles, Coatings, Imaging, and Plastics. For personal care customers and formulators, our products provide thickening, structure, film forming, SPF enhancement, and more. Sales in more than 50 countries are made from our highly flexible manufacturing facilities in Barnsdall, OK, USA, supported by R&D and applications laboratories. This manufacturing and R&D capability allows customization to meet our customers' specific needs. Our sales offices across North America, and in France and Singapore serve our customers in all countries. Our supply chain includes a team of specialist distributors in the Americas, Europe, and Asia. The company is committed to quality and supply assurance along with the efforts to improve our environmental footprint and ensure the safety of our people and the communities we serve.

WHAT IS THE COMPANY INTRODUCING TO THE MARKET/INDUSTRY?

NuCera Solutions introduces PERFORMA™ V 6112 polymer (INCI: C28-52 Olefin/Undecylenic Acid Copolymer), a new innovative synthetic wax with partial biobased materials derived from castor bean oil. This new synthetic wax offers a combination of both functionality and hyperbranched morphology to function as a water-resistant film former. This unique chemistry and structure make PERFORMA™ V 6112 polymer easily emulsified while providing excellent compatibility in many cosmetic oils. The hyperbranched structure enhances shine, binds oil and forms a protective film on hair and skin. The acid functionality forms an anionic emulsifier when neutralized, providing a high gloss and water-resistant film former dispersible in water. In Vitro studies were conducted between several acrylate copolymers and PERFORMA™ V 6112 polymer to evaluate the effectiveness of C28-52 Olefin/Undecylenic acid copolymer to improve SPF retention after water immersion vs. other film forming agents. PERFORMA™ V 6112 polymer greatly enhances sunscreen active performance and is an effective SPF booster at low addition levels for both water/oil or oil/water sunscreens which utilize organic and inorganic sunscreen filters. The polymer can be used alone or in combination with other polymers to impart water resistance. PERFORMA™ V 6112 polymer has a low melting point which make it easy to formulate with as an oil thickening and rheology modifier, resulting in high stability systems. The hyperbranched structure provides a light and non-tacky feel with faster dry time while undecylenic acid serves as an anionic co-emulsifier. It is overall an excellent film former providing superior aesthetics and water resistance in both color cosmetics and sunscreens.

HOW WILL THIS NEW PRODUCT/SERVICE IMPACT THE INDUSTRY (BENEFITS)?

PERFORMA™ V 6112 polymer boosts SPF, provides excellent water resistance and provides stability to sunscreens and other personal care products. This innovative synthetic wax with biobased functionality is an outstanding film former which enhances sunscreen formulations in low level use while providing a light and non-tacky feel.