

Designing Naturally Derived Polymers for Personal Care and Cosmetics

BioMimics, LLC

biomimicsusa.com | surfactiv.com

PRODUCT/SERVICE BACKGROUND INFORMATION

The personal care industry increasingly demands sustainable emulsifier and surfactant ingredients without compromising performance. Traditional natural polymers often provide a single function, requiring additional ingredients to achieve desired formulation properties. Synthetic polymers offer multifunctionality but may not meet sustainability goals. BioMimics bridges this gap by designing naturally derived, multifunctional polymers from renewable and upcycled agricultural feedstocks. These innovative materials combine performance, sustainability, and consumer benefits while offering formulators greater flexibility.

WHAT IS THE COMPANY INTRODUCING TO THE MARKET/INDUSTRY?

BioMimics introduces SurfActiv™, a family of naturally derived, multifunctional tartaric acid–based copolyesters designed to simplify personal care formulations. Unlike conventional single-function natural polymers, SurfActiv™ combines emulsification, rheology modification, and antioxidant properties within one ingredient platform. Developed using green chemistry principles and renewable feedstocks, these versatile polymers enable innovative cleansers, emulsions, and moisturizing products while supporting sustainability objectives.

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

SurfActiv™ demonstrates that sustainability and performance can work together. These multifunctional, biobased polymers offer formulators opportunities to reduce ingredient complexity while delivering emulsification, viscosity control, and antioxidant benefits. Selected polyesters demonstrate ≥60% biodegradation, while representative formulations show favorable skin compatibility and hydration benefits. By integrating multiple functions into naturally derived polymers, BioMimics enables brands to develop differentiated, high-performance personal care products with compelling sustainability attributes.